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Teachers' instructional methods are not meeting the unique learning needs of students with disabilities. Drawing on the arts is one possible beneficial avenue for these students to engage and develop content area understanding. In this exploratory qualitative case study, I listened to four educators and seven fifth- and sixth-grade students as they explained their interactions of teaching and learning content area standards through the arts. I interviewed these participants and collected work samples from two different arts-infused units, one in math and one in social studies. In contrast to much of the current literature, I drew heavily on student voice in gathering perspectives on their work samples and their interactions with the arts.

The overall finding was that integrating the arts into content lessons is a promising strategy for students with disabilities to have equal learning opportunities. After creating and implementing arts-integrated lessons, the classroom teachers assessed student understanding of the content area standards using two rubrics (one for the teacher to assess and one for each student to self-assess his or her work). The seven students were able to demonstrate their grade level content area learning through the arts, which was uncommon for these students through traditional methods. I found that the arts afford students the opportunities to experience learning content area standards differently, which led to an impact on student confidence. Although I studied a small sample in one arts-oriented school, I establish

preliminary findings in the field of arts-integrated teaching that show that using the arts to help students with disabilities understand content area standards yields much promise.

THE PERCEIVED IMPACT OF AN ARTS-INTEGRATED CURRICULUM ON THE
ACADEMIC ACHIEVEMENT OF FIFTH- AND SIXTH-GRADE
STUDENTS WITH DISABILITIES

by

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CHAPTER I

INTRODUCTION

Alain de Botton and John Armstrong (2013) state “art holds out the promise of inner wholeness” (p. 34). For many, interacting with the visual and performing arts supports their learning to effectively communicate knowledge to others. Providing multiple avenues to reach understanding, the arts fills holes where understanding has not been developed before. Engaging with the arts is a promising opportunity for learning that can provide learners with unique insights and understanding. When students are provided the freedom to express themselves using the arts, this can contribute to developing a sense of “wholeness” and a feeling of academic competency.

Problem Statement

The broad problem that I address in this study is that there is a population of students being overlooked and inadequately served with current teaching styles. Students with disabilities are often not taught or assessed with use of methods that correspond with their abilities and needs. Standardized testing and traditional teaching methods typically do not effectively meet their unique learning needs. Many educators presume that students with disabilities are unteachable or unmotivated to learn, but perhaps we need to explore a wider range of avenues to engage them in their own learning. The arts are a possible avenue to encourage learning that can benefit all students, but most notably, they may be especially valuable for students with disabilities.

Realistically, a focus on the arts is dwindling in many classrooms due to budget cuts and to attention to other priorities, particularly subjects that are tested on standardized assessments, such as reading and math. Also, teachers feel the pressure from district officials and administrators to teach strictly with traditional methods from a standardized textbook or curriculum materials. However, drawing from the arts can aid all types of learners. We do not have enough research on the role the arts can play in the education of students with disabilities, even though there are anecdotal accounts of its usefulness. With this research, I am interested in studying if the visual and performing arts are a way to facilitate learning and assess understanding for these students.

Purpose of the Study

The purpose of this study is to examine the impact of arts-infused curricula, specifically how students with disabilities within the general education curriculum interact with the arts-integrated learning experiences that are part of this curriculum. Integrating content areas with the arts is a promising way to reach students through multiple avenues of learning. The arts not only deepen understanding but also provide opportunities for students to enhance learning and display knowledge in various ways through arts assessments (Rabkin & Redmond, 2004). Historically, in working with the population of students with disabilities, educators most notably and commonly treat the arts as a therapy method. However, I am interested in exploring the arts as a means of content area learning and as a part of assessment strategies for these students. With the arts providing diverse means for students to express their understanding and knowledge of various topics, I investigated both students' beliefs in personal success and teacher

perceptions of academic achievement of a group of fifth- and sixth-grade students with disabilities within the general education curriculum who attend an arts-infused magnet school. In this study, I explored teacher perspectives, student work samples, and student reflections in order to evaluate the impact of arts integration in content areas for students with disabilities within the general education curriculum.

Background Context

Teachers attempting to implement arts-integrated lessons encounter obstacles created by educational policymakers. Historically, most U.S. schools valued the arts as an aspect of the curriculum. That changed over time as policy makers increasingly deemed students as unprepared for reading and math assessments (considered the most important basic skills), which led to a notable increase in standardized testing on core content areas, and thus a decrease in non-tested subjects, like the arts. In an attempt to convince legislators of the importance of the arts in classrooms, researchers created documents such as “Champions of Change: The Impact of Arts on Learning,” compiling data demonstrating the positive impact of the arts on learning (Rabkin, 2004, p. 7). The overarching finding of the “Champions of Change” document was low-income students who participated in the arts “did better in school and in life than peers who were low arts participators” (Rabkin, 2004, p. 7). Such data compilations continue to provide a challenge for legislators who are both explicitly and implicitly cutting arts in schools.

One of the major turns to reduce the arts and steer towards the use of solely core disciplines came during the Reagan administration in the United States. Framers of the 1983 legislative report, *A Nation at Risk*, advocated for increased use of standardized

testing to evaluate student achievement; this report set in motion a focus on standardized assessment in ensuing legislation, including No Child Left Behind and Race to the Top (Rabkin, 2010). Rabkin (2010) maintains that arts education decreased as the Reagan administration's support of "A Nation at Risk" as the foundation for education policy ignored the importance of the arts, which "implied that they [the arts] were part of the problem" of United States students academically falling behind other countries' youth (p. 9). Since the Reagan administration felt global education competitiveness was declining, the answer in "A Nation at Risk" was to move back to basic skill development (Wakeford, 2004).

However, attitudes toward the arts have often been conflicting. Some past legislative actions such as President Clinton's Goals 2000 gave hope that the arts would again be considered a core subject (May & Robinson, 2016). Following Goals 2000, academic growth legislation included as part of President Bush's No Child Left Behind policy again pressured educators to focus on testing targets in specific subjects, which consequently often led to teaching these subject areas in isolation and largely in preparation for passing tests (Trent & Riley, 2009). Uncharacteristic of lawmaking in the past, the Obama administration highlighted the arts by establishing a committee on the Arts and Humanities which focused on equitable arts education to support closing the achievement gap between privileged white students and their non-white and low income counterparts (May & Robinson, 2016). Despite the historical fluctuation in the valuing of the arts, most educational legislation has lead educators to narrow the curriculum and to

focus primarily on standardized testing and core content areas, especially math and reading/language arts. This shift leads to a diminished focus on the arts in schools.

Eisner (2002) critiques restrictive legislation based on the goal of uniformity in classroom instruction. This criticism is because educators know that homogeneity is not effective for the diverse student population. Even though researchers such as Rabkin (2012) and Bresler (2002) hail integrating content area lessons into broader thematic units as teaching best practice, policy-mandated teacher-led lesson plans constrain educators by stifling student and teacher creativity. Eisner (2002) argues that the flexibility required to purposefully teach through the arts is not possible when “rigid adherence to a plan” is considered necessary in order to cover curriculum standards (p. 10). With legislation requirements leading to strict teacher-led and often scripted lesson plans and congruity across the grade levels, learning opportunities are missed, and teachers are unable to meet the needs of the diverse student populations in their classrooms.

As legislators attempt to reduce educational spending, the arts are typically among the first subjects to be cut as they are often considered unrelated to academic growth. Wakeford (2004) notes that the “connective tissue binding the arts to” attaining student understanding was historically a reason for legislators to justify cutting the arts (p. 82). Thompson, Ruthmann, Antilla, and Doan (2013) acknowledge that the “educational system appears to be minimizing artful opportunities during instructional time” by eliminating the fine arts in budget cuts (p. 17). As educational funding cuts transpire, “socio-economically lower children receive less arts” (Trent & Riley, 2009, p. 14). Rabkin (2012) characterizes the decline of the arts since the 1980’s for African American

and Latino children as “precipitous” (p. 5). The decline of the arts is particularly troubling in lower-socio economic communities because the arts often contribute to engagement, retention, and success of students from those communities. For example, Hartle, Pinciotti, and Gorton (2015) examined the ArtsIN program where classrooms used an arts-based learning structure. In their evaluation of the ArtsIN program, Hartle et al. (2015) found that arts-integrated experiences were a “critical factor for boys’ school readiness especially those at risk” (p. 294). Even though research shows that arts programs are beneficial for the at-risk student population, Bresler, DeStefano, Feldman, and Garg (2000) claim that budget cuts often eradicate arts programs, which alternative remedial academic programs that focus on core subjects then replace. The loss of the arts means opportunities for meaning-making are decreasing for populations of students who may especially benefit from multiple avenues to increase their achievement.

Methodological Overview

This dissertation is a qualitative case study of the use of arts-integrated teaching methods with fifth- and sixth-grade students identified as students with disabilities within the general education curriculum. I use interviews and work samples to tell a story of the learning obstacles that students with disabilities face and their successes and challenges as they interact with the arts integrated into content area learning. I interview teachers and students and assess student work samples with rubrics corresponding to content standards and goals. To explore the relationship between these students and the arts, the teacher and student interviews provide reflections while the work samples provide insight into student achievement. The small number of participants and the nature of a

qualitative research study mean that I was able to draw detailed portraits of students' engagement with the arts and identify themes within their experiences of using the arts to express their learning. I use the information from the students and teachers, along with my assessment of their work samples, to answer one primary research question and two subquestions.

Research Questions

I have one overarching research question and two sub-questions in this study. The overarching research question is "How do students with disabilities within the general education curriculum and their teachers perceive the impact of an arts-integrated curriculum on academic achievement?" One sub-question is "How is the content area understanding of these students impacted or enhanced by the integration of the arts?" The next sub-question is "How do students feel about themselves as learners when using the arts to understand content area?" I developed these research questions through studying the existing literature, reviewing relevant theory, and conducting a pilot study on the topic.

Theoretical Influences

The theories of constructivism and multiple intelligences shape my experiences and understandings of arts-integrated learning and provide an implicit foundation for this study. These theories influence the choices I made for this study. Almost all research found on the topic of arts integration cites Howard Gardner's multiple intelligences theory. This theory that people possess multiple distinct intelligences has also influenced my work as a teacher in an art-infused school. Gardner's notion that children can best

understand information when provided multiple avenues for learning directly correlates with the open-ended nature that the arts provide for learning opportunities. Constructivist theorists, including Bruner and Vygotsky, also provide theoretical foundations for the value of arts-integrated learning where students construct their own understanding based on experiences. Below, I examine the influences more in depth to show how the ideas of Gardner, Vygotsky, and Bruner influence my study.

As part of his theory of multiple intelligences, Howard Gardner argues that humans have a range of ways of exhibiting intelligence, and thus we should vary learning activities and assessments so as to provide students with multiple avenues for making meaning. Gardner (1993) argues that each form of intelligence must “enable the individual to resolve genuine problems” and “entail the potential for finding or creating problems” which lay the “groundwork for new knowledge” (pp. 60-61). Acknowledging that we may continue to develop and grow new forms of intelligence, Gardner (1993) identifies in *Frames of Mind* the following forms of intelligence: linguistic, musical, logical-mathematical, spatial, bodily-kinesthetic, and personal. Gardner provides evidence for his theory of multiple intelligences by observing how people use each intelligence to confront conflict, solve problems, create solutions, and consequently, acquire new knowledge. According to Gardner (1993), each intelligence “must be thought of as its own system with its own rules” (p. 68). Possessing an intelligence is “a potential” that can be activated if and when the person uses that intelligence in a situation (Gardner, 1993, p. 68). In examining the potential of students to apply certain

intelligences in creating new understanding, I highlight specific intelligences that connect with the arts domains and that Gardner observed most often in school-aged students.

As my study spotlights students learning through the arts, I focus on the intelligences that Gardner associates with the arts. Gardner (1993) argues that musical talent shows earliest in children; many children show preference in identifying musical patterns in their learning over other forms of intelligence. Gardner (1993) views the rhythmic organization of music as inborn; he argues school-age children have schema for songs more than language (p. 109). Music captures feelings and communicates emotions, which are often difficult for children. This intelligence is a natural pathway for children to convey their thoughts and acquire new information.

Visual-spatial intelligence also connects to the arts in that it includes “capacities to perceive the visual world accurately” as well as modify and recreate “aspects of one’s visual experience” (p. 173). Gardner (1993) references Piaget who examined the visual-spatial intelligence in children as they traced routes, manipulated images, and formed mental images. Gardner (1993) describes a five-year old child on the Autism spectrum who had the ability to recall shape, size, and contour but lacked the conceptual knowledge in sorting. Gardner found that most students with disabilities, especially students with Autism spectrum disorder, had unique gifts in one intelligence domain and tended to be average in the others, which held true with the five year old child he studied.

Quoting Norman Mailer, Gardner (1993) writes “there are languages other than words, language of symbol and language of nature. There are languages of the body” (p. 207). Gardner views the bodily-kinesthetic intelligence as a vehicle that can serve

educational purposes. Within this intelligence, dancing and movement can be used purposefully to convey the value of concepts and ideas. For example, Gardner (1993) observed a student on the Autism spectrum, who had a profound communication deficit, miming a machine which demonstrated “considerable understanding of the nature and operation of a variety of machines” (p. 214). Children imitate from a young age, which makes bodily-kinesthetic intelligence intuitive for many elementary students. Gardner (1993) even goes so far as to say that kinesthesia is like a sixth sense, which shows how significant it is to engage this form of intelligence in classrooms. Gardner (1993) references Richard Boleslavsky who states “we have a special memory for feelings which works unconsciously for itself and by itself... it is in every artist. It is that which makes experience an essential part of our life and craft. All we have to know is how to use it” (p. 227). Being given the opportunities to use the forms of intelligence most suited to individual learning styles, students can begin to make meaning.

Gardner’s theoretical framework of multiple intelligences provides the grounding assumptions for this study. An arts-integrated curriculum furnishes students with multiple access points to create understanding of content area standards. Students have the opportunity to explore concepts using the intelligence that meets their learning needs. Just as Gardner (1993) observed in school-aged children, especially among students with disabilities, musical, visual-spatial, and bodily-kinesthetic intelligences aid in meaning making because of the artistic nature that often comes more naturally and fluently to these students. In this study, I am mindful of Gardner’s theories of multiple intelligences

as I explore the extent to which students learn through using a variety of different intelligences.

As constructivists, Vygotsky and Bruner both embody the basic values of arts-integrated teaching. Derry (2013) called constructivism “the process of meaning-making,” which is an active process unlike a behaviorist conditioning transfer of knowledge (p. 45). Through experiences related to the learner’s schema or preexisting knowledge, the learner forms new knowledge. Each learner’s unique previous experiences and opinions influence the new understanding (Clark, 2018). With the students as the active participants in their own learning, the teacher is the facilitator providing engaging resources to ascertain new learning opportunities. Complimenting one another, Vygotsky is associated with social development theory and Bruner with discovery learning, both of which come into play in learning in and through the arts.

Vygotsky’s social development theory demonstrates how students “find deeper meaning” through social interactions (Clark, 2018). The arts often provide opportunities for social collaboration between individuals which can enhance individual meaning making. A “more knowledgeable other” on a topic such as a teacher or classmate can lead the learner towards understanding through those social interactions (Clark, 2018). Vygotsky also described zones of proximal development which is “the distance between the level of actual understanding and the more advanced level of potential development that develops from social interactions with other individuals” (Clark, 2018). These zones are malleable with understanding flowing in between the zones as students move from needing support from the “knowledgeable others” to independence.

To move through the zones of proximal development, scaffolding is necessary, which is also part of Bruner's theory of discovery learning. Scaffolding entails providing learning opportunities at the appropriate level of understanding needed for students to be successful. Arts activities offer natural scaffolding, since students often can find the right amount of challenge when they are given a range of choices to illustrate their learning. Teachers, acting as facilitators and motivators, also scaffold learning in authentic arts-integrated lessons to afford help when necessary (Clark, 2018).

In arguing for discovery learning, Bruner suggests that such an approach enables students to seek understanding by themselves through exploration. Students construct knowledge through experiences rather than the instructor merely relaying information. Discovery learning has many learning benefits seen in arts-integrated lessons such as active engagement, higher motivation, heightened creativity, and individualized learning experiences (Clark, 2018). Participating in an arts-integrated learning process through the lens of constructivism affords students opportunities to make meaning in an authentic, engaging, and student-centered way.

Researcher Perspective

My positionality in this research project is unique as I am a teacher in the school where I collect my data and I am an advocate for using the arts in learning. Based upon my experiences working at an arts-integrated school for my entire teaching career, I have seen firsthand how the arts can contribute to effective teaching methods to diversify learning to meet all students' learning needs. Even though I have observed students with disabilities enhance their learning through the use of the arts and can talk anecdotally

about what I have learned, I designed this study because I wanted to understand the experiences of these students in more depth. Few researchers have conducted studies on arts-integrated teaching methods and assessments with students with disabilities. In my experience, the arts provide multiple learning opportunities for all students, so I naturally assume that students with disabilities will also benefit from a range of avenues to learn and demonstrate understanding. I realize that I already hold a bias towards valuing arts integration, so I am reflexive in analyzing my data and used a peer reviewer (a former Exceptional Children teacher) to help play devil's advocate as I developed findings from my study.

Significance of the Study

Traditional curriculum is standardized and often ineffectual in meeting the needs of a diverse range of learners. Educational legislation can inhibit creative curricula options and confine teachers to narrowing and standardizing their approaches to teaching and assessments. However, there is little evidence that these approaches serve all students equally well. To ensure equity in educational opportunity, we must explore a range of curricular options, especially so as to individualize education as much as possible.

This study will be of interest to anyone who wants to broaden their vision of teaching and learning through and with the arts. It is especially significant for educators developing school curriculum, for special education and classroom teachers striving to teach for understanding, and for researchers studying the unique learning needs of Exceptional Children. In the broad sense, this study provides answers to a gap in

literature. Currently, the literature provides insight into the effectiveness and value of arts integration for the general population of students (Trent & Riley, 2009; Lorimer, 2011; Rinne et al., 2011). However, there is little research on the impact and perceptions of effectiveness of arts integration for students with disabilities, especially research that includes the voices of these students and their teachers. Findings from this study can help readers to understand how students with disabilities and their teachers experience an arts-integrated curriculum.

Overview of Chapters

In the next chapter, I review the literature to provide an overview of current research surrounding the field of arts-integrated (also known as arts-infused) curriculum. I offer a definition of arts integration and provide examples of authentic arts-integrated activities within content areas. After analyzing existing studies, I conclude that there is a gap in existing research, particularly as few scholars study the academic achievement of students with disabilities when they interact with arts-integrated lessons. Researchers document heightened engagement, increased motivation, and deepened learning experiences for many students, but the existing research largely overlooks students with disabilities.

In chapter three, I guide the reader through the methodology I used to conduct this study. I begin by describing the pilot study I conducted and show how it influenced this research study. I discuss the setting, the sample population, and the data collection methods. Further, I detail the data collection methods of structured interviews and work samples and the strategies I used for analysis. I include further information on my

positionality and how it influences this study in a section on trustworthiness and limitations.

In chapter four, I report my findings from the study. I developed these findings by first coding data sources, then looking for overlapping codes, and then identifying themes. To begin to answer the research questions that guide this study, I report the findings in three thematic sections. I unpack and analyze each of them in detail.

In chapter five, I answer the research questions and discuss how my study attempts to fill a gap in the current literature. I also acknowledge some of the limitations of the current study that may be addressed in future similar studies. I also provide educators' recommendations for practice that emerge from my research. Finally, I end with some personal reflections as I came to the end of this study, including moments that most challenged me, surprised me, and helped me to learn.

CHAPTER II

LITERATURE REVIEW

Current research examines the effectiveness of an arts-integrated curriculum on the academic experiences of students with disabilities but only in a limited way. Researchers show that the arts are beneficial in closing the achievement gap and enhancing social experiences (Mason et al., 2008; Rinne et al., 2011; Lorimer, 2011). Academic achievement is seen in art-infused projects, and students develop self-efficacy, increased motivation, and better attitudes toward learning at the end of an integrated curriculum unit as opposed to at the beginning (Moorefield-Lang, 2010; Trent & Riley, 2009). Historically, legislators have inconsistently advocated for the arts in schools, with legislation that either hinders or promotes the implementation of the arts to promote learning. Hailed as best practice by researchers such as Eisner (2002), integrating the arts into content areas can be beneficial for all students, but the potential for engaging students with learning disabilities through the arts is largely only anecdotal and speculative as there is very little research on this topic.

In this literature review, I examine research that provides the foundation for studying the impact of arts-integrated lessons on students with disabilities. In the first section, Defining Arts Integration, I set the context for an explanation of arts-integration in schools. In the next section, Arts at Young Ages, I explore research related to the innate artistic abilities of children. In section three, Academic Benefits of Arts

Integration, I examine studies that view the arts as a significant component to academic achievement. In this section, I have subsections where I address research on the multiple learning avenues that the arts provide and the opportunities for students to learn abstract concepts through the arts. This section also includes subsections on research about student engagement and motivation during arts-integrated activities and how the arts heighten students' perceived self-efficacy, which in turn can influence academic achievement. In section four, Social Benefits of Arts Integration, I examine the behavioral traits of students taught through the arts and discuss how the arts enhance social and emotional development. Honing in on my study's participants, in the fifth section, The Arts and Students with Disabilities, I investigate the specific population that I study and their interactions with the arts. Finally, I conclude with a summary and point out the gap in the current literature.

Defining Arts Integration

In order to determine the parameters of authentic arts integration, I begin by defining arts-integrated curricula. LaJevic (2013) completed a study to discover the degree to which the arts were integrated in schools. LaJevic (2013) observed teachers using the arts for rudimentary purposes and interviewed teachers who expressed the attitude of the arts as "icing on the cake" (p. 9), as opposed to an integral part of teaching and learning. Given that the arts are often devalued, or considered an unnecessary piece to learning, it is important to define what authentic arts integration looks like as a foundation for my study of its impact.

The most commonly cited definition stems from the Kennedy Center's partnership with schools, Changing Education Through the Arts (CETA). The CETA defines authentic arts integration as "an approach to teaching in which students construct and demonstrate understanding through an art form. Students engage in a creative process which connects an art form and another subject area and meets evolving objectives in both" (Silverstein & Layne, 2010, p. 1). Student inquiry is a distinct characteristic of art integrated activities (Burnaford, et al., 2007; Strand, 2006). When students actively reflect upon and revise their work through arts-infused activities and assessments, the arts become a vehicle for inquiry (Burnaford et al., 2007). An authentic arts-integrated curriculum involves a systematic approach. It is not simply one activity. Moreover, it involves considering processes of learning, not just the final product (Bresler, 2002). In an arts-integrated curriculum, the focus is on the entire artistic process as it takes place throughout a lesson or a unit, but a product evidences learning, usually evaluated by a rubric to check for understanding (Silverstein & Layne, 2010; Thompson et al., 2013; Trent & Riley, 2009).

Hartle, Pincoitti, and Gorton (2015) define an effective approach to arts-based learning as incorporating "both arts infused learning essential for process and skill development in an art form... and integrated learning experiences embedded in children's daily experiences to generate rich meaningful cognitive connection to other disciplines" (p. 289). An equal relationship between the arts and the content areas is a significant aspect of arts-enhanced curricula (Burnaford, et al., 2007). Silverstein and Layne (2010) call the symbiosis of the content area and the arts "mutually reinforcing" because it

carefully shapes a balance to positively affect student learning. Meaning making occurs when students draw parallels between content area and the arts (Burnaford, et al., 2007). Silverstein and Layne (2010) provide an example of an authentic arts-integrated lesson that connects social studies content area with the performing arts. In the lesson, students are charged to create a tableau or motionless stage picture that depicts a defining moment in the Trail of Tears (Silverstein & Layne, 2010, p. 7). In this activity, students synthesize social studies content with bodily and kinesthetic knowledge as a way to deepen their understanding of this historic event and its impact on those who were forced from their lands. Similarly, Trent and Riley (2009) studied a social studies lesson on privacy laws which also integrated literacy standards and visual arts by having students demonstrate their conceptual understanding of privacy laws with an artistic visual representation accompanied by an artist statement describing their artwork. In this case, they also described how the the arts synthesized with the content areas enhanced the students ability to develop and illustrate their understanding (Lorimer, 2011).

Arts at Young Ages

To move away from the current restricted, narrow, and test-driven curriculum, Rudolph and Wright (2015) urge that “curriculum should support and encourage students to engage in this [collaborative] way and that artistic and graphic expression play a key role in this [reflective] process” (p. 504). Rudolph and Wright (2015) recognize the visual arts as a tool for students to express their understanding of abstract subjects such as history. At younger ages, students can often fruitfully explore complex topics when they are able to draw upon their natural artistic tendencies. For example, Thompson et al.

(2013) observed students explicitly exhibiting artful behaviors without direct art instruction while engaging in lessons. During structured learning times, elementary students were observed thoughtlessly performing an “artful” behavior such as drumming, rocking rhythmically, or dancing around the room (Thompson et al., 2013, p. 8). Labeling “artful behaviors” as “artistic impulses,” Thompson et al. (2013) argue that a predisposed ability of students to use the arts is not commonly capitalized upon in current teaching methods, but rather it is stifled. Bresler et al. (2000) claim that current curriculum standards do not typically encourage students “to construct personal meanings” or to create deep understanding of the topics they are studying (p. 18). If current pedagogical practices are not producing the desired student achievement, then educators ought to consider options such as arts integration. Researchers have shown that children have a natural proclivity to create art and educators can draw on this ability to engage them in learning other subjects.

Based on their observations at a variety of grade levels, Thompson et al. (2013) concluded that arts opportunities typically decrease as children progress in age. Meaning-making occurs at all times in a learner’s education, so steadily losing the chance to authentically understand a concept through many and varied learning avenues is concerning. Trent and Riley’s (2009) research integrating content areas, student creativity, and the arts demonstrates that integrating the content areas with the arts “generates deeper, more complex understandings” (p. 27). As I previously mentioned, for part of their research, Trent and Riley (2009) integrated literacy and social studies standards through exploring the concept of privacy rights. Students created visual artistic

representations with “artist statements” to elaborate on their representation to demonstrate their understanding of privacy rights. Trent and Riley (2009) provided a student’s poem as an example of deep understanding; the student used figurative language and applied social studies standards while exhibiting creativity, exercising choice, and supporting artistic interpretation.

Academic Benefits of Arts Integration

With the arts providing students with multiple means in which to express their understanding of ideas and concepts, for example through such means as visual arts, music, theater, dance, and more, arts-integrated curriculum proponents find that students are usually able to demonstrate their understanding of curricular concepts and material clearly in at least one medium. The arts can afford student choice in terms of how to learn and illustrate their learning, which in turn provides the opportunity for students to practice decision making (Mason et al., 2008). Teachers who use a variety of learning activities and assessments have more resources to better evaluate students’ understanding (Trent & Riley, 2009). Mason et al. (2008) argue that the arts in their varied forms are “an avenue for access” where students can discover the path that is most effective in terms of their own learning (p. 42). They interviewed teachers who explained that choice offers increased student engagement and allowed “for greater freedom in instructional practice” (Mason et al., 2008, p. 40). Hartle et al. (2015) describe an arts-integrated curriculum as entailing multiple literacies, which activate the brain and body. The arts-integrated method of learning uses aesthetic experiences to reach students’ natural instincts and synthesize the arts with other aspects of their academic and social world.

De Botton and Armstrong (2013) state that “art builds up self-knowledge, and is an excellent way of communicating” (p. 47). The arts can be a vehicle to translate language for those students for whom “words feel clumsy” (de Botton & Armstrong, 2013, p. 47). With the arts providing varied ways to “organize, communicate, and understand information,” students have the opportunity to be more successful in the classroom as compared to using just one standard means of expression (Hartle et al., 2015, p. 290). Similarly, Howard Gardner praises the multiple avenues of learning that the arts provide by stating that the arts are a means “to develop a range of intelligences” (Catterall, 2002, p. 154). By immersing themselves in a variety of arts methods, students have a heightened opportunity to gain understanding of content area knowledge and to illustrate that understanding.

Despite the benefits, legislators have commonly passed reforms that focus on standardized content assessments in only a few areas, which create a sense that arts are supplementary to the teaching of a more narrow set of academic content standards. However, this may be a problematic strategy when research shows that arts integration can actually increase performance on standardized tests. For example, Rinne et al. (2011) studied long-term retention of content material and found that “students who participate in the arts tend to outperform their peers on standard measures of academic achievement” (p. 89). Rinne et al. (2011) examined rehearsal of material by using the arts and found that long-term retention of material is higher when artistic activities are involved. Simple repetition is not as motivating as elaborative rehearsal of material by using the arts. Rinne et al. (2011) even say dramatizing material is more effective than merely reading

or hearing material because of an emotional attachment to the information. In a review of 435 studies from 1995 and 2011, Robinson (2013) states that multi-arts integration positively affected reading achievement and potentially math achievement for disadvantaged populations (p. 200). If the arts are being taken out of schools, then students may be less likely to successfully retain material for standardized tests.

Because of a general public loss of confidence in the educational system, Eisner (2002) asserts that there is pressure to focus only on measurable data; consequently, an educator's professional discretion to draw on multiple teaching strategies and modes of assessment has been limited. The research on arts integration includes studies that show how authentic assessment can be used to meet diverse students' needs. Trent and Riley (2009) found that arts-integrated assignment assessment results yielded higher performance than non-arts evaluations. In Trent and Riley's (2009) integration of social studies and the arts, teachers found students were able to demonstrate understandings through work samples for summative assessment. An assessment product could include a cut paper visual arts piece, as used in Trent and Riley's study. Learning targets were met because of the differentiation to students' needs using arts assessments. As student assessment options are expanded and open for creative interpretation, Trent and Riley (2009) suggest that the "wider range of opportunities for students to demonstrate proficiency" allows for students of all levels of learning to succeed (p. 27). Varying student interpretations of understanding render opportunities for teachers to provide specific feedback with students in mind (Hartle et al., 2015). In "leveling the playing field," arts-integrated assessment, such as visual art pieces or performing art dramas,

provides opportunities for students to authentically exhibit their understanding (Mason et al., 2008, p. 41). From academically gifted students to students with disabilities, the arts potentially meet needs with a plethora of opportunities to develop understanding. In a partnership between the Kennedy Center and Scottsdale Arts, an Academically Gifted teacher reports the arts to be a “great way to differentiate and get the kids interested and spark creativity” (Rosequist, 2017). The varying and flexible rigor that the arts provide can meet the needs of diverse populations.

The academic benefits of arts integration in the classroom are multi-faceted, ranging from increasing students’ interest and engagement, to helping them to understand abstract concepts and apply their learning in varied settings. Among the most commonly cited learning benefits of art-infused activities are multimodal methods of constructing understanding, increased ability to understand abstract concepts, greater student engagement and motivation, and an increased sense of self-efficacy in learning. I describe each of these in the following subsections.

Multimodal Methods of Constructing Understanding

By constructing meaning from multimodal arts activities, students emanate complex understanding through the constructivist tenets of an arts infused curriculum. Educators who value arts-infused curriculum actively use art as a foundation for students “constructing their own understandings in unique, idiosyncratic ways” (Trent & Riley, 2009, p. 15). With open-natured arts projects, these educators afford students learning opportunities where students can answer thought-provoking questions in a creative fashion (Rudolph & Wright, 2015). Arguing that the arts provide infinite interpretive

avenues, Bresler et al. (2000) studied an artists-in-residence program and the multiple perspectives of students related to the non-directed and interpretive disposition of the arts. As Bresler et al. (2000) found, the visiting artists probed students with questions that gave way to multiple interpretations and ways to learn. The researchers suggest that traditional academic curriculum does not encourage students to draw such personal meanings about what they are learning. Bresler et al. (2000) and Trent and Riley (2009) demonstrate that students show increased critical thinking skills with the integration of the arts into the curriculum. These are especially useful to expanding their understanding of abstract concepts.

In working towards student mastery of curriculum topics, some educators recognize the innate need of students to learn through the arts and are responding by providing meaningful multimodal opportunities. Dissanayake (2007) theorizes that aesthetic processes are discovered in a child's natural surroundings; because of this, students are predisposed to recognizing and utilizing art forms. In nurturing youthful imagination, Bresler et al. (2000) state that art integration fosters connections, which strengthen critical thinking skills and aid in the construction of personal meanings. Durrani (2014) describes arts-integrated curriculum as having a "multisensory, multifaceted approach;" these approaches result in students who are typically highly engaged in a learning method that relates to their inborn need to create and make choices (p. 100). Likewise, Thompson et al. (2013) observed that students implicitly and unconsciously perform art-like behaviors in informal unspecified arts directions within the classroom lesson. Thompson et al. (2013) reported that "students' behaviors suggest

that their bodies are predisposed toward artful activities” (p. 16). Because of the behaviors occurring additionally in structured lessons, Thompson et al. (2013) conclude that children have “artistic impulses” that prompt such behaviors (p. 9). Some of the behaviors they observed were “aesthetic and rhythmic behaviors” like students drumming, dancing, or choosing expression through methods other than words or numbers (Thompson et al., 2013, p. 8-9). Hartle et al. (2015) directly relate the student learning from arts integration to knowledge construction. The construction of knowledge is embodied through the natural inclination of arts. Hartle et al. (2015) use an example of a child playing with blocks and his natural instinct to make a “boat” from two blocks when he sees a puddle. Hartle et al. (2015) say this example shows that children “learn and express themselves fluidly through art mediums” that allow them to merge creativity and critical thinking (p. 290). Supporting these claims, Eisner (2002) calls artful behaviors a means of communication, connecting the predisposed need to use the arts to understand and connect with others.

Student Understanding of Abstract Concepts

An important benefit of arts-integrated curriculum is that it facilitates student understanding of abstract concepts. Rudolph and Wright (2015) studied students’ abilities to describe complex historical concepts through visual arts pieces and classroom discussions. For example, when asked what history looks like, one student drew concentric circles. The explanation for a simple visual arts symbol was abstract. The student said “life is like a circle” leading to a conversation about life evolving through generations (Rudolph & Wright, 2015, p. 495). They found that “written and spoken

language can be somewhat limiting” in comparison to meaning making through the arts (p. 488). Art as a semiotic tool aids in “symbolic and metaphoric communication” as a means for students to interpret significant concepts not easily stated with words (Rudolph & Wright, 2015, p. 504). Combining art forms and creativity yields cross-modal engagement for students to have the opportunity to successfully theorize abstract concepts (Rudolph & Wright, 2015). Bresler et al. (2000) found the arts to be an opportunity for students to draw upon concrete visuals of otherwise difficult to grasp concepts, especially in cultural awareness. Bresler et al. (2000) identified teachers who used cultural symbols which heightened multicultural awareness. In one example, they described the integration of the arts and Social Studies content of ancient civilization as a way to promote multiculturalism by having students create masks or friezes (Bresler et al., 2000, p. 21-22). Eisner (2002) concurs with the value of the arts for abstract meaning making since the arts are a way to express what literal language cannot. As art requires interpretation, students develop understanding of content material through the natural inclination to question and decipher unknown information (Rinne et al., 2011). In addition to the arts being an avenue for understanding abstract concepts, the arts also encourage cross-cultural communication between students, and help to enhance their engagement and motivation in learning.

Student Engagement and Motivation

The aesthetic nature of arts infused projects transforms content area learning into an engaging experience for students. Evaluating the A+ school partnership where teachers are provided professional development training to integrate the arts into content

area instruction, Thomas and Arnold (2011) show that achievement data on end-of-grade tests is comparable to that of students in traditional schools. Even with the similarity in test scores, the teachers highly valued the “affective domain,” indicating the teachers felt that arts’ emotional connection was as important as achievement results (Thomas & Arnold, 2011, p. 102). DeMoss and Morris (2002) support this claim in stating the affective connections with the content was deeper and more positive when students were able to use the arts as part of their learning (p. 21). Positive outcomes, such as higher student engagement which resulted in reduced discipline referrals, cannot be assessed on a standardized test, but they stemmed from the arts integration opportunities.

Studies show increased student engagement in academic studies in arts infused activities and classrooms. In Lorimer’s (2011) study, involving interviews with teachers who drew on the arts in their classrooms, he found that the arts are a “positive catalyst” for higher student engagement, also contributing to improvements in attendance and behavior (p. 7). The Chicago Arts Partners in Education, CAPE, where the arts are a part of daily curriculum, students reported arts lessons to be “fun” with no claims of boredom in the classroom (DeMoss & Morris, 2002, p. 17). Lorimer (2011) observed arts-infused learning to increase confidence, which consequently heightened student motivation and engagement. Studying a drama class performance and observations, Moorefield-Lang (2010) discovered increased confidence with the arts giving middle school students a chance to express themselves. As I previously mentioned, motivating students to create understanding, arts-integrated lessons are often more effective than repetitious memorization activities (Rinne et al., 2011). Catterall (2002) cites affective

development, which refers to the “willingness of individuals to put their skills to use,” as a positive outcome of arts integration (p. 154). Moreover, Catterall (2002) suggest that affective development in students through arts activities is an important way to defend the arts as a motivation factor in learning experiences.

In Trent’s and Riley’s (2009) research, they observed a high level of student engagement in arts-infused activities, as well as a lack of discipline problems. Similarly, Rabkin (2012) investigated teaching artists who engaged students in creative arts-integrated tasks which generated “self-regulation” instead of behavior discipline (p. 11). Bresler et al. (2000) studied an artist-in-residence program where they observed highly interactive and integrated lessons, leading to student engagement and increased student interest. Strand (2006) investigated a collaboration between a theater company and an elementary school where high student engagement was observed through “chaotic” emotional and exciting classroom student conversations (p. 33). In a collection of arts research, Catterall (2002) synthesized studies directed towards at-risk students. Arts immersion revived their learning. The at-risk students benefited most from the engagement piece of the arts. Through observations of conversations between students, Radhakrishnan (2014) researched the interactions of fifth-grade students with an arts-infused curriculum. Radhakrishnan (2014) found a high level of student engagement evidenced from student work samples where students found a “voice” to express their learning. With such studies pointing to the authentic learning that can come out of arts infused curricula, researchers agree that arts-integrated studies are a means to engage students in deeper understandings.

Perceived Self-Efficacy

A range of researchers claim that arts-integrated curriculum is highly engaging, empowering, and motivating for students of all ages. Robinson (2013) states that “students who have a strong belief in their capability to perform a specific task successfully [self-efficacy] demonstrated more self-regulation behavior” which includes skills such as goal setting and self-reflection (p. 202). Students often experience success with the open-endedness of the arts, and concurrently, their sense of self-efficacy develops. When they feel empowered, students are more successful in demonstrating their understanding through the arts. Robinson (2013) adds that students are more likely to challenge themselves and exhibit higher efforts when higher self-efficacy is present. The “constructive challenge” builds the confidence and engages students to enrich their learning (DeMoss & Morris, 2002, p. 13).

Evaluating an economically disadvantaged middle grades population, Lorimer (2011) focused on empowerment stating that the visual and performing arts experiences allow students to “actively construct personal meaning” (p. 2). Lorimer’s goal was to examine an equitable arts-integrated education for middle grades students, beginning from the assumption that the arts were a positive catalyst for developing student understanding. In a teacher interview, Lorimer (2011) learned that students are more willing to take risks in the arts than in writing. Therefore, encouragement of the arts may motivate students to persist in becoming more confident and taking risks to construct meaning in other contexts. Likewise, Hughes and Wilson (2004) interviewed adolescents participating in a youth theater program and discovered development in participants’ self-

identities as a result of their participation. In particular, the performing arts grant students the freedom to adopt roles where they can express themselves more freely than in other contexts. Taking risks on the stage for performing arts connects to other forms of academic risk taking. Hughes and Wilson (2004) find the theater to be a space for students to become self-aware and break a mold towards “a wider range of thought and feeling” (p. 69). In two rural middle schools, Moorefield-Lang (2010) interviewed ninety-two eighth-grade students about their experiences with the arts. Through these conversations and questionnaires, Moorefield-Lang (2010) found that adolescents felt a high sense of efficacy in their arts classes. The self-efficacy of eighth graders was highlighted through the sense of supportive competition between peers to succeed. Confidence was heightened as students were applauded by their peers for excelling in the arts. Students compared themselves to other drama students, so the students applauding effort and risk-taking of other students either positively or negatively affected self-efficacy (Moorefield-Lang, 2010).

Trent and Riley (2009) support these claims in their research by observing urban fourth-grade students displaying “a strong sense of efficacy” with being “pleased with the results of their efforts” (p. 22). In a focus group by Trent and Riley (2009), a student spoke of being proud of his work even though it was challenging. Bandura (1993), as part of his self-efficacy theory, claims perceived self-efficacy (ability to succeed on a task) promotes success. In such studies as Trent and Riley (2009) and Moorefield-Lang (2010), researchers illustrate how the arts foster a perceived sense of self-efficacy, which in turn, can lead to achievement in the classroom in other subjects. However, there is

little empirical research that shows that perceived self-efficacy indeed leads to achievement, even as this connection seems logical.

Social Benefits of Arts Integration

While the academic benefits for students participating in arts-integrated lessons are notable and important, there are also many social benefits, including encouraging cultural responsiveness. When thoughtfully selected, the arts present “voices of other cultures,” and, in so doing, engaging with art “stretches our notions of ourselves and our world” (de Botton & Armstrong, 2013, p. 65). The use of the arts promotes students in cultivating intercultural relationships and cross-cultural understanding. In a study in middle grade classrooms, Lorimer (2011) found an expanded appreciation of culture among students because of “the power of the arts to promote intercultural collaboration” (p. 7). Lorimer (2011) cites two school instances of students working in culturally diverse groups on arts assignments. In both instances, students worked cohesively in decision-making. One classroom observation showed students negotiating details of the arts project such as placement of color. The exploratory nature of the arts projects promoted engagement with peers, provided challenge, and motivated students to take risks. The arts are a catalyst for facilitation of an energetic and collaborative work environment (Lorimer, 2011). In Catterall’s (2002) compendium of arts research studies, she cited drama as the most significant art form to aid in interpersonal relations. Through performing arts, students are able to practice conflict resolution and develop problem-solution strategies to adopt into their real life practices. May and Robinson (2016) studied a partnership between elementary schools and arts foundations. The collaborative

partnership included teacher professional development, planning time for arts-integrated activities, and direct integration into the content areas. After observations and teacher surveys on the arts collaboration, they noted social benefits such as increased self-esteem, improved interpersonal skills, and enhanced classroom community (May & Robinson, 2016). By strengthening student confidence and social skills, the arts can help to enhance students perspective on the world (Rabkin, 2012).

The Arts and Students with Disabilities

As I have illustrated throughout this chapter, researchers describe many benefits to arts-integrated learning experiences, including the promotion of “intercultural collaboration,” increased student engagement, and growth in academic achievement (Lorimer, 2011, p. 7). As they provide a natural opportunity for differentiation, arts-integrated curricula could prove a valuable means to teach and assess students with disabilities, especially those who are unable to communicate effectively with written or oral language. Studies have been conducted on art therapy for aiding students in communication, but I have not been able to locate research on using art as a vehicle for increased academic achievement for students with disabilities. For example, Durrani (2014) examined creative expression and social functioning facilitation through visual arts activities with a child on the Autism spectrum. Visual art therapy was an effective symbolic communication tool for the child. The participant also made speech improvement during his art therapy time. Therefore, Durrani (2014) concluded that art therapy helps to “heal and transform unpleasant life experiences through symbolic

communication” (p. 102). However, Durrani did not discuss whether this student also grew academically because of the arts activities.

Mason et al. (2008) corroborate Durrani’s claim of arts as a mean of communication therapy by stating that the arts are a means for students “to express their understandings, their feelings, and their beliefs” (p. 41). In assisting students with disabilities in acquiring appropriate communication techniques, arts therapy can open a means to provide voice (Mason et al., 2008). Relating this concept to a case study, Durrani (2014) observed a student on the Autism spectrum who preferred the arts therapy approach as opposed to a language-based approach. The boy’s speech development improved through the implementation of art therapy (Durrani, 2014). Despite the fact that researchers have shown many benefits to arts-integrated curricula, as well as benefits with art therapy, little research has been done on the academic potential of arts infused curricula with students with disabilities.

In examining teaching artists and students with learning disabilities, Durham (2010) concluded based upon student interviews that self-perception transformed as students learned their personal learning strengths and weaknesses through interacting with the arts. Durham (2010) investigated a school founded specifically for students with learning disabilities. Durham (2010) used numerous qualitative methods including interviews, observations, and artifacts in creating case studies of teacher-identified students. Having success in the arts led to self-reflection and the development of self-efficacy for these students. Similar to Abedin (2010), teachers do not distinguish the students as having disabilities because the arts provide students with the necessary

communication tools to succeed in the classroom. At a public charter school, Abedin (2010) observed students labeled with learning disabilities and their engagement level during music and drama classes. Abedin (2010) offered three major findings from his investigation of adolescents with learning disabilities and their interactions with an arts-based curriculum. The arts provided a safe learning environment for students to take risks, created choice for students to succeed with multiple options, and allowed for embodied engagement through nonverbal communication. Through observations, Abedin (2010) identified these students as having a “medium within which to use their ideas and creativity, make choices, and be able to move as they learned” (p. 298). It is through observing the engagement of all students that Abedin realized the significance of learning through the arts with these students. Even an interviewed teacher could not differentiate the Learning Disabled, LD, students from the general student population because the arts provided equal opportunity for learning success. Although these studies are beginning to establish a correlation between arts integration and enhanced student learning, there is insufficient evidence to prove a strong connection and much more research is needed on how the arts impact learning for students with disabilities, especially so we can capitalize on the potential that is discussed in so many research studies.

Summary

Research strongly suggests that authentic meaning making can be created by enhancing curriculum with arts integration. A child’s innate connection with the arts presents the natural pathway for communication about a range of topics and disciplines.

If students are provided with many and varied opportunities to learn and then express their understanding through arts avenues, they will be able to develop the critical thinking necessary to be successful as twenty-first century learners. Infusing content area curriculum with the arts can positively contribute to students' multimodal learning experiences. Arts therapy methods have been shown to be effective means of developing communication of feelings for students with disabilities. Missing from the conversation of arts and students with disabilities is focusing in on how an arts-integrated curriculum approach can help teachers to adapt learning and assessment techniques for the students with disabilities, which in turn could lead to better academic achievement for these students.

CHAPTER III

METHODS

In this methods chapter, I explain the approach I take to gather data to answer my research questions. To begin, I discuss the pilot study I performed before designing this study, my initial findings, and the pilot study's influence on this research project. I then describe the specific methodology I use in this qualitative case study, along with a description and justification for the methods I chose. I also describe the research setting and sample population of participants. I then specify the data collection methods, including structured interviews and analysis of student work samples, and the data analysis strategies. I also report my positionality as the researcher and how I maintain trustworthiness.

Pilot Study

In order to explore the feasibility of this study, to test out methods, and to develop a research protocol, I conducted a pilot study over the course of two semesters. In the fall 2017, I interviewed teachers and observed in classrooms, exploring the learning of students with disabilities in arts-infused classrooms. Then, in spring 2018, I collected data from teacher interviews and student work samples. My goal during the spring 2018 pilot study was to test the interview protocols and other data collection methods. The spring pilot data collection project had four participants, one third-grade teacher and three identified Exceptional Children students. From my Fall 2017 teacher interviews

with Kindergarten and sixth-grade teachers, I amended my interview protocol to include questions about perceived student self-efficacy as a creative learner. My broad goal for the teacher interview was to learn how they perceived that their students with disabilities interacted with authentic arts-integrated activities. More specifically, I wanted to inquire about how the teacher used arts-integrated activities to teach academic concepts and assess student learning, particularly when working with students with disabilities within the general education curriculum.

The next phase of my pilot data collection project was student surveys, which turned into student interviews. I based the student surveys on Carolyn Burke's reading interview but adapted the survey to investigate students' perceptions of themselves as artists. The goal of the surveys was to assess student self-efficacy to eventually assess if the students' views of themselves as creative learners correlated with their performing successfully with arts-integrated learning experiences. I gave surveys to the students before their arts-integrated Social Studies unit. Students had difficulty writing their own answers, so I wrote some answers as they dictated them to me. I found that their willingness to provide thorough responses was higher if I wrote, which is something I took into consideration in designing my case study.

The third piece of my pilot data collection project entailed examining student work samples from an arts-integrated social studies project. I assessed student work samples alongside a teacher rubric, which assessed their content learning and what the teacher called "attractiveness" or artistic input/neatness. The goal of investigating the work samples was to assess whether I could see a connection between the students'

perceived achievement on arts projects and their actual academic performance. Another goal of using the work samples rubric was to examine how the students demonstrated their understanding of the content area learning goals for the arts-integrated unit.

The pilot data collection project yielded some preliminary findings that I used to shape my case study. From the student perspective, the students at younger ages seemed to view the visual arts as representing all of “art,” not considering, for example, the performing arts. Students seem to consider other people, especially adults, as “good artists” rather than viewing themselves as artists as well. Realism in visual art was important to these students. Creating detailed and realistic visual art projects seemed to be the goal and priority of the students I worked with. Overall, my case study students did not seem confident in their artistic abilities with the students saying things such as “I [sic] good at drawing easy things but not hard things” or “I’m sloppy.”

The teacher’s perspective on the value of the arts was consistent with my findings from current research. For example, the teacher and current research agree with the aspects of the arts providing multi-sensory learning experiences, giving opportunities for students to learn through multiple avenues, and contributing to students’ confidence in learning. However, I was somewhat concerned that the teacher’s rubric for the work sample assessed content area knowledge but also “attractiveness,” which she defined as neatness. This subjective view that art cannot be messy made me realize a disconnect between her definition of authentic arts integration and her actual practice. In my interview with her, she defined authentic arts integration as “art to teach” and discussed using art to apply learning standards to “real world application.” Yet I could not

understand how “neatness” connected with assessing a student’s artistic abilities. I concluded that for my study’s data collection, I needed to be involved in the creation of the rubric, so that I could best draw from the rubric to answer my research questions.

After conducting the multi-semester pilot study, I identified two major themes: arts as a pathway to learning and arts as avenue for promoting confidence. In my interview with the teacher, she stated that the “multisensory” aspect of the arts provides her students a “greater chance at being successful.” When I asked about students with disabilities gravitating towards one art form, she mentioned that her students participating in the study were confident and successful at various art types. She added that “you have to assess a child and see where does their artistic ability lie” to mold assignments to their particular learning needs. On each of the work sample rubrics, the case study students scored the highest achievement mark on demonstrating content area knowledge. This indicated to me that the visual arts piece was a successful method for the students to express their understanding, at least according to the teacher. The teacher also compared traditional assessment and arts assessment stating that arts assessments provided students with opportunities to develop “self-worth and self-esteem.” The arts assessments heighten self-esteem, which presumably then better enables students to demonstrate understanding in comparison to traditional assessment that the teacher says students with disabilities “tend to bomb.” The teacher scored the students’ work samples a 2 out of 4 or a 3 out of 4 on “attractiveness” on their work sample rubrics. Since students spent time on creating “attractive” and detailed visual arts pieces, I assume their self-esteem level in being artists, and consequently learners, would be enhanced over time.

The pilot study led me to make changes to my case study protocol. Considering the case study participants and the school's population, I realized after the pilot study that I would need to use two grade levels for a sufficient amount of participants. I viewed fifth and sixth grades as ideal for my research, since older students are more likely to provide detailed responses during interviews and teachers are assessing more complex content area standards at those grades. In the pilot study, the students were in a group for their surveys, but I found that students were influencing each other's responses to the questions I asked. Consequently, I believed that one-on-one student structured interviews would provide me with more helpful data, and that assumption proved to be true as I conducted this study. Instead of holding the student interviews at the beginning of the unit, I also decided to complete a post student interview with the individual students where I asked about their experiences and asked them to reflect on their work samples. I also determined that a post teacher interview where I ask the teacher to further explain the work samples and provide her with an opportunity to share her perspective of the arts-integrated unit experience would be valuable. Overall, the pilot project provided me with opportunities to try alternative types of data collection to determine the strategies that would most likely be effective in helping me to answer my research questions.

Research Questions

The broad research question for this study is as follows:

How do students with disabilities within the general education curriculum and their teachers perceive the impact of an arts-integrated curriculum on academic achievement?

Two sub-questions will help me to answer this question:

- How is the content area understanding of these students impacted or enhanced by the integration of the arts?
- How do students feel about themselves as learners when using the arts to understand content area?

Methodology

I conducted a qualitative case study in order to answer my research questions and study the potential of art-infused activities for the learning and academic growth of fifth- and sixth-grade students with disabilities within the general education curriculum.

Qualitative research is a good technique to use when you want to get rich, thick information and to tell a story that can help inform responses to a problem. According to Merriam and Tisdell (2016), qualitative researchers use words as data instead of numbers. Merriam (1998) names the researcher as the primary instrument for data collection, so I collected and analyzed the data as the “human instrument” (p. 7). One of the benefits of this approach is that it allowed me to adapt the interview protocol while I talked to participants, and to follow-up with additional questions. As the researcher is the primary instrument, I also integrated my own experiences from the data collection into my analysis, which provides data that is “more vivid, concrete, and sensory” than quantitative forms of data collection (Merriam, 1998, p. 31). Yin (1994) suggests that adaptiveness and flexibility are key aspects to a case study. I am drawn to this approach in part because I was able to make changes as necessary throughout the study to collect data that helped me to answer my research questions.

In this study, I collected data from interviews and student work samples and their corresponding rubrics. I assessed learning experiences and achievement through studying arts-integrated work samples. I interviewed teachers to learn about their perspectives on arts-integrated curricula and student interactions with, and achievement through, the arts. I interviewed students to hear their perceptions of learning content area through the arts. Merriam (1998) states that qualitative research is a method to understand how people have made “sense of their world and the experience they have in the world” (p. 6). The teacher and student interviews provided important insights into individuals interacting with their world within an arts-integrated classroom. Yin (1994) cites listening as a key aspect to gaining rich and compelling qualitative data. In the pilot study, I practiced this fundamental skill in preparation for listening with intent during the study’s interviews.

Creswell (2016) states that qualitative researchers should focus on a small number of people and involve rich, detailed, and thoughtful descriptions. Consistently, I worked with a small number of participants in order to explore in depth their relationships with an arts-integrated curriculum. Describing case studies, Merriam and Tisdell (2016) suggest they involve investigating a phenomenon within the real-life context. Yin (1994) adds that case studies can be used to explore the impact of interventions; in this instance, I use a case study to assess the intervention of an arts-integrated unit in a classroom. Examining students interacting with the arts in their natural classroom environment constitutes the features of a case study. According to Merriam and Tisdell (2016), a case study must have a “bound” system to study. The particular population of students with

disabilities in this study are a “bound” or “fenced in” group (Merriam & Tisdell, 2016, p. 38). The specific case study is a group of fifth- and sixth-grade students who qualify for Exceptional Children services based on their Individualized Education Plans, identifying them as having disabilities within the general education curriculum. Yin (2014) argues that a case study is a means to “retain a holistic and real-world perspective” on a group of interest (p. 4). This real-world perspective contains many variables interacting together for findings to emerge (Merriam, 1998). This study aims to provide a real-world perspective on using an arts-based curriculum for students with disabilities.

Setting

The setting of the study is at The Arts Based School in Winston-Salem, North Carolina. The Arts Based School, ABS, is a public charter school located in the downtown area, surrounded by both local small businesses and large corporations such as Reynolds American, Inc. The relationship between the surrounding community and the school is significant, as many of the local businesses help to provide financial support and classroom learning opportunities. ABS opened in 2002 and has gradually grown to have kindergarten through eighth grades with 529 enrolled students in the 2018-2019 school year. The average class size in kindergarten through eighth grade is about twenty students (Public Schools of NC [Public], 2017). According to the school’s website,

The Arts Based School is committed to active and creative scholarly exploration that engages students, their family/community, and all school personnel in the learning experience. A strong core curriculum that builds on students’ life experiences and multiple ways of knowing/learning will be realized through individualized and intimate integrated interdisciplinary, arts-based instruction.

The school has a Principal, an Assistant Principal, and an Arts Director who comprise the administrative team. The Board of Directors consists of local business people and community leaders.

Integrating the visual and performing arts with the North Carolina Standard Course of Study, students receive unique learning experiences at ABS. In maintaining the goal of authentic learning experiences, the school only requires the state minimum amount of standardized testing, including DIBELS mClass reading assessments (kindergarten through third grade) and End-of-Grade tests (third through eighth grades). Unlike traditional public schools, in the third through eighth grades, students take Measures of Academic Progress, MAP, assessments three times a year in Reading and Math, and Science is tested in fifth and eighth grades. The teachers use the students' RIT, Rasch Unit scale, scores to plan data-driven instruction and identify areas of academic need. The mean student grade level RIT scores are compared to the national mean in Table 3.1. In most grade levels, the ABS students are scoring well above the national mean. The school prides itself on its teachers using non-traditional arts-integrated instruction to teach curricula and the students still achieving on standardized tests. Using the arts to teach and assess students, the teachers in this school setting believe that the arts provide multiple avenues for learning and creatively integrate arts-integrated activities in content classes.

Table 3.1 MAP National Mean RIT Compared to ABS Mean RIT 2018

Math	National Mean RIT	ABS Mean RIT 2018
Third Grade	190.4	188.4
Fourth Grade	201.9	207.3
Fifth Grade	211.4	213.0
Sixth Grade	217.6	225.2
Seventh Grade	222.6	231.6
Eighth Grade	226.3	239.3
Reading		
Third Grade	188.3	192.0
Fourth Grade	198.2	210.2
Fifth Grade	205.7	212.4
Sixth Grade	211.0	223.8
Seventh Grade	214.4	224.5
Eighth Grade	217.2	229.9

According to the 2017-2018 North Carolina School Report Card, ABS met growth status with a “B” school performance grade. Student achievement indicators on End-of-Grade achievement tests can be seen in Table 3.2.

Table 3.2 NC School Report Card 2017-2018 ABS Achievement Data

Achievement Proficiency Indicator	Score
Reading EOG	73
Math EOG	67

In comparison with the state average, ABS had a higher percentage of students achieving Level 5, superior command, performance on Reading, Math, and Science End-of-Grade tests (Public, 2017). With 96.8% of the teachers fully licensed and given student performance on state tests, it is fair to argue that the students are receiving high quality instruction. Since the school is unable to provide cafeteria meals or transportation, the population of students involves only families who do not require such services and who voluntarily enter the annual lottery for acceptance. Families who receive priority placement are siblings as well as staff member and Board member children.

The school's financial support is similar to that of public school funding through local, state, and federal support. In North Carolina, charter schools receive funding per student from the state. At ABS, a little over half of funding, 56.4%, is allocated for staff compensation. In order to continue arts programs including acquiring specialty artists to work with students, ABS must hold fundraisers and annual campaigns to raise the capital for such programs.

Sample Population

There were two groups of participants in this study, seven fifth- and sixth-grade students identified with disabilities and four teachers – two in general education and two in the Exceptional Children department. I describe more about who comprised each of these groups below.

Students

I worked with seven fifth- and sixth-grade students who are identified with disabilities as specified in their Individualized Education Plans, IEPs. The students disabilities categories include Speech/Language Impairment (SLI), Specific Learning Disability (SLD), and Other Health Impairments (OHI). The National Institute on Disability and Rehabilitation Research (2012) identifies these three categories studied as the most prevalent under IDEA in ages 6 to 21: Specific Learning Disability, 41.2%; Speech/Language Impairment, 18.7%; Other Health Impairments, 12.2%. According to Malley (2014), students with disabilities are a heterogeneous group but with the commonality of the “presence of a disabling condition that requires specialized supports to benefit from the general curriculum” (p. 4). The question I explored is if the arts support these students to effectively learn the content area standards.

With parent permission, the students participated in the study through interviews and through sharing work samples from an arts-integrated unit. All of the following names are pseudonyms to protect the identities of the participants. Table 3.3 provides the basic information for the student participants, including eligibility category for IEP identification and student EOG scores from the 2017-2018 school year.

Table 3.3 Student Sample Population

Pseudonym Name	2018-2019 Grade Level	Eligibility Category	Math EOG score 2017-2018	Math Percentile	Reading EOG score 2017-2018	Reading Percentile
Larry	6	SLD/SLI	2	38%	2	29%
Lyndsey	6	SLI/OHI	2	25%	1	21%
Leah	6	OHI	2	38%	2	32%
Madison	5	SLI	2	39%	2	23%
Karen	5	SLD	1	3%	1	12%
Jeannie	5	SLD/SLI	1	2%	1	5%
Georgia	5	SLI	2	20%	3	49%

Providing student profiles is useful to the analysis of the data. Student profiles paint a picture of the participants that can help a reader better understand their classroom experiences and how they draw from the arts in their learning. I provide brief portraits of each participant below.

Jeannie.

Jeannie is a fifth-grade student who is an English Language Learner, ELL, with her primary language at home being Spanish. She is identified with a Specific Learning Disability in Reading and Speech/Language Impairment. She receives special resources in written expression as well. According to her teacher, Mary, and the Exceptional Children team, Jeannie lacks confidence in the classroom and has a difficult time with explaining her thought process. Jeannie's self-perception as a learner is negative.

Jeannie states "I don't learn at the same grade as people but I do get it." She says the arts

make her happy, especially visual arts with her enjoying the multiple mediums to use in creation of an art piece.

Georgia.

Georgia is a fifth-grade student receiving services for a Speech/Language Impairment for receptive and expressive language. Her IEP goal focuses on increasing language skills, especially with math vocabulary terms and figurative language meanings. Georgia finds the arts “fun and special.” In describing the “special” factor, she says it is because she gets to “do something that you want to do, like creative.” With her favorite art being visual arts, she finds inspiration through experiences such as relating the art park sculptures to her arts assessment. Georgia describes herself as a learner who is not fully focused and sometimes gets “stuck.”

Madison.

Madison is a fifth-grade student receiving services for a Speech/Language Impairment in receptive and expressive language. Quantitative concepts in story problems is one focus from her IEP. Other goals include phonological awareness and vocabulary. Madison connects with drama, saying it allows her unique opportunities to show off her personality. She describes herself as a learner whose “mind has opened up more than it has been” and finds art makes learning more interesting. Madison finds artistic inspiration in being different from others.

Karen.

Karen is a fifth grader who is identified with a Specific Learning Disability in Math. Her IEP goal focuses on independently reasoning thought word problems. In discussing art, Karen initially connected to surface-level experiences such as coloring. She loves to make things “look nice” by coloring and being creative. She also connects her visual art to that of other artists such as the music teacher’s optical art; talking with her, it is obvious that she appreciates her artistic process. Karen’s identifiable willingness to please me as the interviewer is evidence of her teacher’s observation that she likes being told exactly what to do instead of critically thinking.

Larry.

Larry is a sixth grader who is identified with a Specific Learning Disability in Reading and Math and Speech/Language Impairment. His IEP goal for his SLD in Math focuses on mathematical reasoning with a goal of becoming more strategic in word problems, and his goals for reading focus on developing reading comprehension strategies. Larry’s SLI targets expressive language, especially in writing. Larry explains his relationship with art to be “joyful,” “relaxing,” and “entertaining.” With history being a passion of his, he described how art “shows a way of life” and “tells a story.” He articulated his concern for dying art forms, as well as his appreciation for art throughout history.

Lyndsey.

Lyndsey is a sixth grader who is identified with Attention Deficit Disorder which qualifies her IEP category as Other Health Impairment, OHI. Lyndsey also receives

Speech/Language services in expressive language. Her IEP includes math and reading comprehension goals. On occasion, Lyndsey finds visual art challenging because “sometimes it’ll go faster than you can process your mind.” She enjoys participating in dance and drama. She describes herself as “rushed,” “nervous,” and a student who “tries to focus a lot.”

Leah.

Leah is a sixth-grade student who receives services under the Other Health Impairment category. In fifth grade, she was exited from her Speech/Language Impairment category as she met her articulation and phonological awareness goals. Her current academic goal relates to reading comprehension. Leah “absolutely loves” the arts; this was evident as she spoke about her grandfather’s art, her after school drama classes, and her sewing. According to Leah, “art isn’t something that you do right off the bat... you have to keep practicing.” Similar to Larry, Leah spoke about how art tells a story throughout history to help people learn about events today.

Teachers

The general education fifth- and sixth-grade teachers who participated in the study have had traditional public school experience, but both have taught at The Arts Based School for over three years. The teachers frequently use arts-integrated methods in their classrooms and are known at the school to be exceptional at their authentic use of arts integration. Ginger, the sixth-grade teacher, spent three years teaching fifth grade at a traditional public school. She then joined ABS to teach third grade for four years and is currently in her first year teaching sixth grade. Mary, the fifth-grade teacher, is in her

seventh year of teaching at ABS. Her experience before ABS was student-teaching in a traditional public school with Academically Gifted students. At ABS, she taught fourth grade for four years and is in her third year of teaching fifth grade.

The Exceptional Children teacher and the Speech/Language, SLP, teacher are also active parts of the study as they are interviewed alongside the general education teachers post-unit in order to provide another perspective on the students' experiences and work samples. The Exceptional Children teacher, Annie, is completing her master's degree in Special Education as it is her first year in this role. Annie formerly held a role facilitating a student on the Autism spectrum as he worked in the general education classroom. The SLP, June, has worked at the school for ten years in the same role. June is licensed through the state of North Carolina and through the American Speech-Language Hearing Association.

Access to the Site

The principal and assistant principal granted me access to the school site verbally and in writing. They approved both the pilot study and the research study occurring within their school. IRB approved letters were used for consent. The consent forms are in Appendices A (classroom teacher), B (Exceptional Children teacher), C (parental consent for a minor), and D (student). The fifth- and sixth-grade teachers and the Exceptional Children teachers consented to act as participants. Since the student participants were minors, I obtained parental permission for them to participate. I also gave the students the opportunity to learn about the study and consent through the use of a simple question/answer format about the study.

Data Collection Methods

I collected three different sets of data for this study. I completed interviews with the general education teachers both before and after the teachers implemented an arts-integrated unit of study. The Exceptional Children team was a part of the post-unit interviews to provide their reflections and commentary on the student work samples. Additionally, I interviewed the fifth- and sixth-grade students with disabilities after they participated in an arts-integrated unit. To assess understanding within the content areas (math and social studies), I gathered the students' work samples with corresponding teacher-completed rubrics and student self-reflection rubrics. Below, I elaborate on each data collection piece. I then provide an overview of the two different lessons that I studied and the arts-based assessments that the teachers used.

Educator Interviews

One data collection method was teacher interviews. I interviewed a fifth- and sixth-grade teacher before they taught an arts-integrated unit that they thought would be good for this study. I also interviewed them, alongside the Exceptional Children team, after the unit was complete. In this second interview, they reflected on the teaching experience and discussed student work samples. I drew from Merriam and Tisdell (2016) and Kvale and Brinkmann (2009) to develop my interview guide and protocol.

According to Merriam and Tisdell (2016), researchers should carefully plan interview questions, avoiding jargon to make questioning clear, composing purposeful and focused questions directly related to the study's goal, and asking open-ended questions. Kvale and Brinkmann (2009) suggest scripting interviews to have an outline

of suggested questions or topics to be covered. Following Kvale's and Brinkmann's best practices, I developed interview protocols for the educator interviews which can be found in Appendices E (classroom teacher pre-unit interview) and F (classroom teacher and special education teacher post-unit interview). I refined the initial interview protocol after conducting four pilot interviews with teachers ranging from Kindergarten through sixth grade. Appendix E is the structured interview protocol I used prior to the arts-integrated unit in which I explored each teacher's background, reflections on arts-integrated teaching, experiences and thoughts about teaching students with disabilities, and details of the unit. Appendix F is the structured interview protocol for the classroom teacher and Exceptional Children team that I used post-unit. I felt like it was important to hear from the teachers before and after they taught the arts-integrated unit to examine any changes in their perspectives or findings from teaching with this approach, as well as reflect on student learning as shown from the student work samples.

Student Interviews

Another data collection technique I used to assess academic growth and student experience was student interviews. Based on Carolyn Burke's (2005) student reading interview questions, the student post-unit interview protocol (Appendix G) contains open-ended questions for students to reflect on their perceptions of learning through the arts. To pry into the students' minds, I asked about their experiences in learning through the arts and asked them to describe their achievement within the unit's assessment.

Student Work Samples

The third set of data was student work samples. The school prides itself on not giving numerical grades. Instead, the students demonstrate learning through work samples that the teachers write narratives about in which they describe student learning, growth, and understanding. For this study, I examined the teacher-created rubric that accompanied the work samples that the teachers used to illustrate if the students successfully evidenced understanding of content area standards. As the researcher, I collaborated with the teachers to ensure that the rubric they used would align with the study's goal. Both of the assessments used visual arts in assessment. In addition to looking at the rubrics and work samples myself, I asked the teachers and students during their post-unit interviews to analyze, reflect, and provide feedback about the work samples.

Lesson Overviews

The classroom teachers explained their arts-integrated lessons in their pre-unit interviews. I describe each of the lessons in order to contextualize the comments and experiences of the teachers and students. These experiences only make sense if one understands the content area of each lesson and the teacher's learning goals.

Fifth grade: visual arts and math integrated unit.

Mary created this unit based on the visual art connection between optimal art and fractions. Mary explained her reasoning behind choosing optical art, describing how it is abstract, geometric, and fractional. Since usually optical art is not broken into equal

pieces, students have to “rely on benchmark fractions and reasonableness of fractions to discuss different artwork.”

Piet Mondrian, an impressionistic and abstract artist, is Mary’s inspiration for this unit. The students received a Piet Mondrian painting at the beginning of the unit and were asked to estimate how much of the painting was red and to explain their reasoning. From this pre-assessment, Mary evaluated misconceptions and strategies seen in the students’ defenses. At the end of the unit, the teacher gave the students the same painting and again asked them to justify their new understanding of a fractional answer.

After the pre-assessment, students dove into viewing optical art examples and fractional pieces by creating equal pieces in cutting up or drawing on the paintings. Mary wanted her final assessment to take the students’ understanding to the highest level of Bloom’s taxonomy where the students develop their own art piece and defend a fractional piece of their own choosing. As she described it to me, the assignment is “self-scaffolded” where students can challenge themselves to their level of understanding. Students chose the fraction and created the optical art piece accordingly for their project. Mary says this assessment allows for students to choose “where they feel they’re going to be most successful.”

Sixth grade: visual arts and social studies integrated unit.

Ginger created an integrated arts-enhanced social studies unit using the sixth-grade ancient civilization standards. Her goal is for students to understand “the track that ancient Egyptian history took and how people... influenced the changes.” She also wanted her students to examine and model traditional art forms that are specific to

various cultures. Ginger hoped that the unit would assist her typically struggling students in demonstrating historical understanding through the visual art form.

For this unit, students researched ancient civilizations, including studying the arts of those civilizations. In particular, the students studied the hieroglyphics of the ancient Egyptians. The visual art teacher collaborated with Ginger to assist students in tracing the history of this unique visual arts method.

As part of the unit, Ginger engaged her students in fiction and nonfiction readings and showed them video clips to hook her students at the beginning of the unit. She placed the students into differentiated small groups and assigned them each an ancient Egyptian ruler to research. The students also read articles based on their reading comprehension level and used an organizer to record researched information. Individually, students created an Egyptian-themed visual timeline of their leader's life for the unit assessment.

Data Analysis Strategies

I used traditional qualitative analysis strategies to make meaning of the data. I first coded the data, then grouped similar codes into categories, and finally identified themes from those categories. I used coding labels to assist in identifying patterns or recurring topics from all three data sources (Merriam & Tisdell, 2016). I used in vivo coding to outline the commonly used language in teacher and student interviews (Saldana, 2014). In vivo coding uses the participants' language to discover similarities and frequencies.

Initially, I considered coding the teacher interviews, student interviews, and work samples separately. After reviewing the transcripts and work sample copies, I realized the connectedness of the three data sources. Rereading the transcripts and listening to the interviews allowed me to hear key words that enabled me to identify patterns. The repeated words and phrases led to eighteen initial codes. I color-coded the repeating words, phrases, or subjects to assist my organization. After identifying the recurring topics, I merged the codes into similar groupings. The commonly used language led me to the three loosely established themes. I separated the eighteen codes into their corresponding theme. For example, I placed codes such as *proud*, *excitement*, *effort*, *feeling successful*, *empower*, and *ownership* into the category of words encompassing the arts impacting confidence. After I placed the recurring words into themes, I refined and edited the theme titles to capture the findings from the data.

Trustworthiness/Ethical Considerations

The primary strategy I utilize to ensure trustworthiness is triangulating three different data sources. Merriam and Tisdell (2016) highlight triangulation as a strategy to ensure trustworthiness as it involves a researcher comparing and contrasting the data among multiple sources. By reading across the teacher interviews, student interviews, and student work samples and looking for patterns, themes, and anomalies, I am able to make claims about the impact of arts integration on student achievement.

I also used peer review as a strategy to ensure trustworthiness. A peer reviewer is someone who is familiar with the research topic and can provide criticism, be an advocate, and review the study (Creswell, 2016). The reviewer in this study was the

former Exceptional Children middle grades teacher from the study's site. Formerly, my reviewer taught public middle and high school students with disabilities and was passionate about the community-based training program to teach students with disabilities vocational skills that she had created. Along with my reviewer's high qualifications in the field, she held interest in my completing this study because she feels that Exceptional Children do not "fit in the hole" of traditional learning. Since these students do not learn effectively with traditional methods, she knows they need another possible way to learn.

I chose my reviewer based on her interest in, and familiarity with, the study as well as her willingness to act as a critical colleague and devil's advocate during the time when I was conducting the study, and especially throughout the data analysis process. Moreover, because she used to work with the case study students on a regular basis, she understands their learning needs and interactions with the arts. Since the peer reviewer is now a former employee at the school, her distance from the school environment was also a positive factor. She provided an honest and open opinion on the findings without worrying about how others might interpret her comments.

In terms of the role my peer reviewer played in the study, she scrutinized and questioned me to ensure I was not making assumptions based on my experiences. In planning my data collection, my former colleague reviewed my student interview protocol to help ensure that the questions were tailored with the students' disabilities in mind. This review was helpful as she holds an expert opinion in interacting with these students. After this discussion, I was able to identify probing questions to use when they

were unable to answer the planned open-ended questions. During the process, my reviewer served as a guide in helping me maintain an open mind that the arts may or may not be effective for all students with disabilities. We discussed other students of various disability categories during the process in order to play devil's advocate. These talks assisted my reflexivity as well, helping me to identify and unpack my own implicit assumptions. After my evaluation of the data, I presented my peer reviewer with my themes and supporting data pieces. My reviewer challenged me to examine limitations and suggested changes for future research. For example, she wanted to see the sixth-grade teacher provide choices in which art form the students could use for their final project. She confirmed that these students needed scaffolding for the written piece of the arts assessment due to their disabilities in the Speech/Language category. The insights and perspectives of the peer reviewer strengthened the trustworthiness of the study, especially as she helped me to ensure that my positionality did not substantially influence the study's results.

In recognizing that all researchers hold biases, I also worked to be continually reflexive throughout the study, which Rallis (2010) defines as consistently reflecting on one's practice and ensuring that I think about how my positionality and assumptions might be influencing my analyses and could cloud what I was able to see. For example, when examining the students' work samples, I initially assumed the students' reasonings behind their visual arts pieces. During the student interviews, I heard the students' personal interpretations, which debunked my initial assumptions about their understanding and reasoning. The teacher interviews were another instance in which I

needed to be carefully reflexive. Since the teacher participants were my colleagues, looking back over the interviews, I realized I speculated the teacher responses before interviewing them. Initially, I thought the teachers felt complete buy-in for the arts assisting all students' learning experiences, but I learned that their support for the effectiveness of the arts was contingent on student disability category and individual student needs. Once the teachers completed the rubrics, I also made initial assumptions about how they graded the work samples. Instead, hearing Ginger's and Mary's reasoning during the post-unit interviews challenged me to reinterpret my initial understandings. These are just a few instances where reflexivity was significant to providing trustworthiness in the interpretation of the data. According to Rallis (2010), having caring reflexivity ensures that the "participants' voices and actions are represented fairly" (p. 438).

Another ethical issue that was important to this study was ensuring confidentiality for the participants, especially considering that with permission, I name the actual school (Merriam and Tisdell, 2016). I use pseudonyms for all teacher and student participants' names to preserve some degree of privacy. However, because I name the school and there are a limited number of teachers and students in these grades, it may be possible for readers to identify the participants, especially the teachers. I explained that potential along with the purposes of the study to participants and obtained their consent via IRB procedures. My research approach is shaped by Kant's principle of "treating people as ends in themselves" instead of a means for me to get results (Rallis, 2010). Therefore, I aimed to be polite and respectful in creating a trusting environment for participants to be

honest and open. In creating a respectful environment, the pre-existing relationships I already had with the student and teacher participants helped me to obtain more detailed information for the interviews. Some of the students I had taught in previous years, and some I had interacted with during the school day. This familiarity helped students' comfort levels and allowed them to seem to quickly open up to me and share their thoughts. The students' openness in this study contrasted significantly with the pilot study, where I did not have a previous relationship with students, and they were reticent to speak on the topic.

In being reflective of my practices as a researcher, I strived to provide a trustworthy analysis of the data and a thoughtful description of the findings. In the next chapter, I describe these findings, organizing them by theme.

CHAPTER IV

FINDINGS

The goal of my study was to investigate the interactions of students with disabilities with an arts-integrated curriculum. According to research literature, as I examined in the previous chapter, learning content area standards with the use of the arts is an advantageous method to teaching students with diverse learning needs. In conducting this study, I was interested in student and teacher perspectives about their experiences with art-based learning, particularly students with disabilities. Research on this arts-infused learning and assessment is limited with this population. Overall, students and teachers reported positive effects on learning through the arts.

I report my findings in three thematic sections. The first theme is *an arts-integrated curriculum provides students with disabilities the opportunity to demonstrate understanding of grade level content area standards*. I unpack this theme in three subsections organized by the three data sources: work samples, student interviews, and teacher interviews. The second theme is *an arts-integrated curriculum impacts students with disabilities' confidence to understand grade level content area standards*. I explore the second theme in subsections highlighted by key words from interviews relating to student confidence: pride, excitement, leadership, effort and independence, and empowerment. The third theme is *an arts-integrated curriculum affords students with disabilities the opportunity to experience learning content area standards differently*.

This theme is arranged into the subcategories of multiple intelligences, level of challenge, focus and engagement, and creativity and inspiration.

Theme 1: An Arts-Integrated Curriculum Provides Students with Disabilities the Opportunity to Demonstrate Understanding of Grade Level Content Area Standards

Knowing that I can at least do it like by myself and at least kind of getting the right answer.
Georgia, 5th grade student

In developing this theme, I drew upon each of the data sources I collected: teacher interviews, student interviews, and student work samples. Student work samples and corresponding self-reflections from interacting with the arts-integrated activities, as well as teacher rubrics, enabled me to study the degree to which students truly demonstrated understanding of the content area standards. Through guided questions as part of interviews, students discussed their understanding of the content material while reflecting on their work samples. Moreover, the teacher interviews, including the general education teachers' interviews on their arts-integrated teaching experiences and the teacher team post-unit interviews, helped me to further understand what students learned and were able to take away from the arts-integrated assignments.

Work Samples

The most significant way I was able to assess student learning was by looking at their work samples and discussing these with both the students and the teachers. I

describe insights from this data by unit. First, I look at the math unit related to fractions and art. Then, I explore the social studies unit on ancient civilizations.

Fifth-grade unit integrating visual arts and math.

The data source that most clearly shows understanding of content area standards is student work samples. In each grade level assignment, after completing the assignment, students had to self-reflect on their projects and review the teachers' grades for their performance. In addition, each individual student explained his or her work sample later in interviews. As evidenced in the teacher rubrics, all fifth- and sixth-grade students passed a basic understanding of the content area standards. Some student participants excelled beyond the basic understanding to meet "above expectations" level on the assignments. For example, the teacher graded Jeannie as achieving above expectations in solving equivalent fractions due to her writing the equation, $\frac{3}{4} * \frac{4}{4} = \frac{12}{16}$, which shows her finding the common denominator to match her art piece.

For the fifth-grade students, each student showed misconceptions in their pre-assessment where they were asked to look at a Mondrian painting and decide which fraction of the painting was red. Specifically, their classroom teacher Mary observed misconceptions about numerators and denominators, as well as equivalent pieces. In Figure 4.1, Madison's pre-assessment demonstrates her lack of understanding of equal pieces in a fraction. Figure 4.2 shows Jeannie's misconception from attempting to find the area of the image by measuring with a ruler and then thinking that strategy would find her the fractional red piece. Both of these figures represent the misunderstanding of fractional understanding for these students.

I think that there is
 1 piece of red so
 I can't the space
 and I get no answer

$$\frac{1}{17}$$

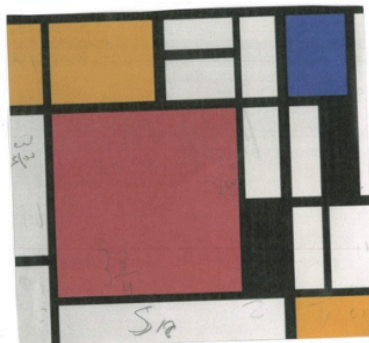
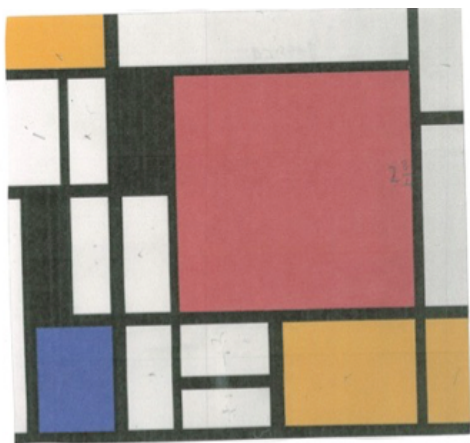


Figure 4.1. Madison's Pre-assessment. This pre-assessment shows her misconception of unequal fractional pieces.



I think that $2\frac{3}{4}$ because
 if I measure the red $2\frac{3}{4}$ but
 if I split it up the cube in to $2\frac{3}{4}$
 in to 4 pieces.

Figure 4.2. Jeannie's Pre-assessment. This pre-assessment shows her misconception about whole numbers in a fraction.

Following their unit on fractions, students' final assessment pieces were telling of their learning. To demonstrate an understanding of fractions and equivalent fractions, the students took advantage of the scaffolded opportunity of choosing their own fraction with smaller denominators, which are easier mathematically to deal with, to create an optical art piece with that chosen fraction shaded red. Mary provided a four by four array where students could break up the sixteen squares in any shape or fashion for their optical art piece. Each student uniquely decided how he or she would show the chosen fraction of “red” within an array of 16 squares. Examples and student explanations of their thought processes for the final assessment optical art pieces are in Figures 4.3, 4.4, 4.5, and 4.6. All of the students’ final assessments demonstrate grade level understanding of the content area through the use of optical art.



Figure 4.3. Karen’s Final Assessment. Karen’s final assessment is a $\frac{3}{4}$ red optical art piece. Karen split her sixteen squares into four groups and colored three of the four groups. Karen was inspired by the “dizzy” feeling of “falling into a hole” from her former music teacher’s optical art.

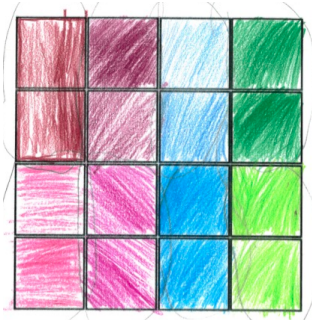


Figure 4.4. Madison's Final Assessment. Madison's final assessment is a $\frac{1}{8}$ red optical art piece. Madison put sixteen into eight equal groups of two in each group and shaded one group of two because she knew $\frac{2}{16}$ divided by $\frac{2}{2}$ would equal $\frac{1}{8}$. To make it optical art, she wanted all of her colored pencil strokes to be in varying directions to be "different than everybody else."



Figure 4.5. Jeannie's Final Assessment. Jeannie's final assessment is a $\frac{3}{4}$ red optical art piece. Jeannie wrote the equation $\frac{3}{4} * \frac{4}{4} = \frac{12}{16}$ to demonstrate her understanding.

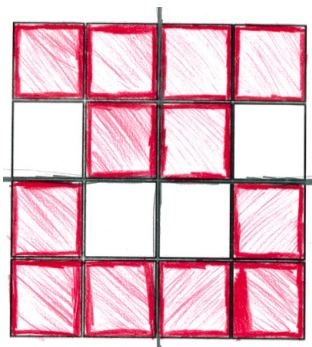


Figure 4.6. Georgia's $\frac{3}{4}$ red Optical Art Piece from her Final Assessment. Georgia explained that she broke the sixteen into four equal groups as shown from the pencil lines in a cross shape. She colored three out of the four squares in every group. She was inspired by structures at the art park near school.

On their final rubrics, all students graded themselves “above expectations,” indicating that their optical art piece “demonstrates high understanding of determining the fraction of a whole” and “used words and equations using equivalent fractions to defend reasoning.” A self-inflated perception of success is evident as their teacher Mary graded the students as all having at least “good understanding of naming fractions and some understanding of equivalent fractions,” but she graded all of the students below grade level for their written defense.

Even though the students demonstrated content area understanding of fractions through their art piece, they still struggled with the written defense. In fact, three of the four fifth-grade students receive Speech/Language services, which seemed to affect their written piece and their ability to talk about it in the interviews. Through the use of art, the students developed and demonstrated fractional understanding, but a written piece did not allow a successful avenue for students to fully explain their answers. Part of the beauty behind using the arts to show understanding is that students can demonstrate everything they know without necessarily using words. Especially with this group of students in mind, their disabilities hindered their ability to compose thoughts in written form. Even though the fifth graders showed their math understanding in their optical art piece, their written description did not match. The students explained their understanding verbally within the confines of the interview, but the interviews were not considered by the teacher when grading the assignments. Later on, I discuss some modifications to assist students with linguistic disabilities when such written requirements are in place.

Sixth-grade unit integrating visual arts and social studies.

After researching an assigned pharaoh, the sixth-grade students were asked to create a visual timeline to demonstrate their ability to construct a historical narrative, to explain events over time, and to explain the role of a key historical figure who transformed society. All three of the sixth-grade students scored at or above grade level for mastery of the standards of historical presentation as demonstrated from their visual timelines. Two of the students, Lyndsey and Leah, had points deducted because their timelines were not in chronological order, but this misconception was corrected once Ginger reminded them. Figures 4.7, 4.8 and 4.9 are excerpts from the timelines, which demonstrate the students' understanding. The figures also show the students' attention to detail in order to represent Egyptian art in an authentic way.

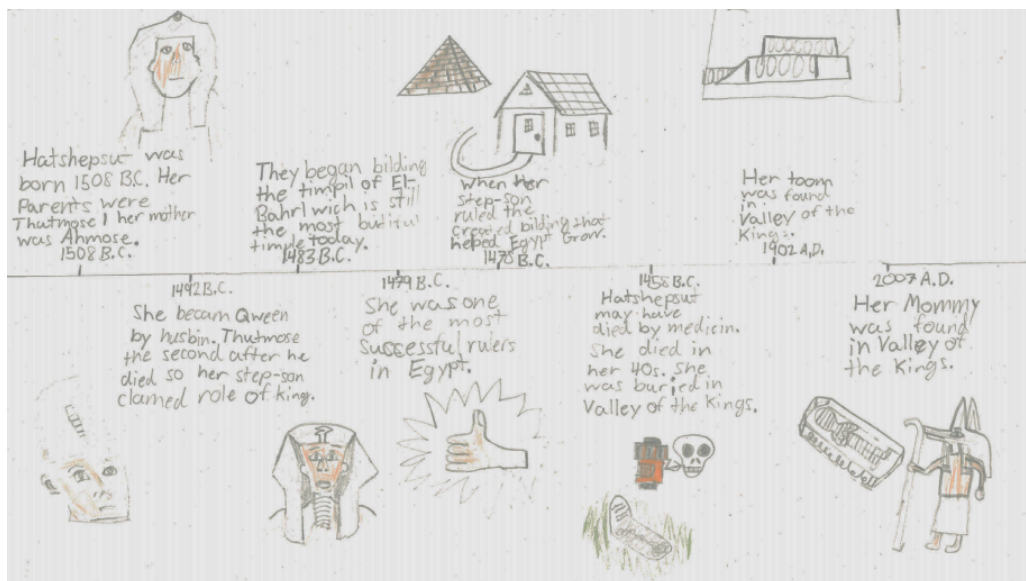


Figure 4.7. Larry's Timeline. Larry's detailed timeline is in chronological order based on the researched events for his assigned pharaoh. Larry explained that he spent an extensive amount of time on his drawings to make them authentic to Egyptian style.



Figure 4.8. Lyndsey's Timeline. Lyndsey's timeline assignment is not in chronological order, but she demonstrated her understanding of a pharaoh achieving change in society. She took pride in her captions pairing with her illustrations as demonstrated in her interview.

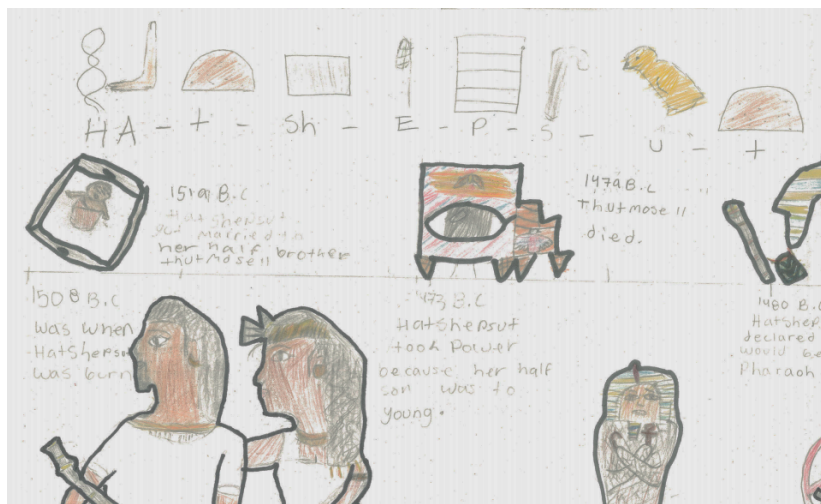


Figure 4.9. Leah's Timeline. Leah's work sample shows her going beyond the assignment by even adding her pharaoh's name in hieroglyphics. In her interview, Leah described her attempt to add hieroglyphics as "a lot harder than it seemed." Her timeline is not in chronological order, but she recognized it in her interview after completing her assignment.

Student Interviews

Through interviewing each of the students after they completed their arts-integrated assignments, I was able to assess their level of understanding of the content area standards. Both fifth- and sixth-grade students verbalized their feelings of accomplishment when discussing their work samples. Larry reflected, “this [project] did teach a lot about a sort of pharaoh.” In her interview, Lyndsey realized her learning had increased on this topic when she expressed, “I didn’t know really much about this person and I got to know along the way like how she became pharaoh when she died and how she died.”

Overall, art was an avenue for the students to demonstrate their understanding. This was particularly true for the math assignment. For example, Jeannie stated, “this project that we can find the answer by art and that we can, we can do fractions to figure it out.” Madison confirmed this notion by saying, “I felt like I understood [sic] it a little bit more when I got to design it and create it.” The open-ended nature of the assignment allowed for students to show their content area knowledge in a unique way. Georgia agreed by saying, “you just like show everything you know” in such an assignment. As illustrated in these comments, the art-infused activities enabled the students to enhance their understanding of the content standards, particularly as they could visually show what they learned. Moreover, they were able to talk about this understanding with me in their interviews.

Teacher Interviews

Before the teachers taught their units, I interviewed them about their perceptions of arts integration and about their teaching with the arts. Both teachers discussed how the arts, in their experiences, have assisted students with disabilities to create understanding of content area standards. Ginger spoke of arts integration being an avenue for students to be successful in areas where they are usually not successful. Mary mentioned numerous times that the arts assignments need to be scaffolded to prevent frustration, but when students are given a series of activities to help scaffold their learning, the arts give “students a chance [to] express their learning in a way that they might be more successful in expressing.” When I asked Ginger to be more specific about this topic of multiple avenues, she discussed how the arts are useful with students with Dyslexia who are “able to represent something in a more visual way rather than in words” and thus are “very helpful” in demonstrating content area learning. Once students have the opportunity to demonstrate their learning, Mary believes students can then “perform better on standardized testing,” since the arts aid in “really understanding that content deeply.” Both teachers champion arts-integrated lessons for students, arguing that they provide a unique form of access to demonstrate content area knowledge.

To support students with disabilities, the arts allow them to illustrate and present their understanding to a teacher in non-traditional ways. The arts assessments provided a clear picture of content area mastery for the classroom teacher and Exceptional Children team. While the uniqueness of each student’s disability is sometimes evident in the work sample assessment, it is also clear that the students achieved and displayed

understanding. For example, June, the Speech pathologist, described Georgia's work stating that, "she's definitely showing the understanding of the fraction... it's interesting that she needed to divide it up in her thought process into each individual section as opposed to looking at the greater whole." Similarly, upon reflection, Mary recognized that Georgia, "had a different line of thinking which is also accurate." Students with disabilities often have even more diverse thought processes than the general population of students, and the arts provide the opportunity for these students to reason through the fractional problem.

In comparing the arts assessment to typical class assessments, the team of teachers identified significant differences. For example, when examining Lyndsey's art-based work sample, Ginger described how she "could demonstrate more understanding with the pictures to go along with the written rather than just the words on a page." June reflected that Lyndsey usually needs repetition with new concepts, but easily corrected her chronological ordering once it was pointed out to her. This shows that "completing a visual timeline is really helpful for her to understand... drawing the pictures is going to help it become more concrete for her I think to retain it." Likewise, Mary stated that Karen's accuracy in the Mondrain assignment was higher than her typical math assessments due to the fact the assessment was focused on one question which "helped her to be successful." The arts assessments allowed for adjustments to be made for the students with disabilities. June explained that Larry typically struggles with reading, but the visual timeline assessment showed off his capabilities. Jeannie's misconceptions were evident in her pre-assessment, but according to Mary, she showed a "much greater

understanding” on her final assessment. Reflecting on how they could make the arts-based activities and assessments even more helpful for the SLI students, the team of teachers decided that access to a word bank would be beneficial as it would provide them with words to use to explain their fractional answer. Such a modification might allow the students to draw on academic vocabulary to better explain their artistic piece to their teachers. In comparison to traditional assessments, the arts assessments allowed for these students to demonstrate their understanding of content area standards.

Theme 2: An Arts-Integrated Curriculum Impacts Students with Disabilities’

Confidence to Understand Grade Level Content Area Standards

We can find the answer by art.
Jeannie, 5th grade student

I developed the second theme after listening carefully to participants’ experiences and examining student visual arts assessments. Psychology Today (2019) describes confidence as “a belief in one’s self and one’s ability to succeed.” Alternatively, lack of confidence is a barrier to learning. Especially for students with disabilities, standardized assessments and typical classroom tasks are frequently frustrating, leading to a negative self perception as a learner. Arts-integrated learning experiences empower students to believe in themselves; this empowerment contributes to learning and enriched understanding of content. To substantiate this theme, the term “confidence” provides a nice broad umbrella for the subcategories of key words I heard from participants as they described their experiences with arts activities. Those keyword subcategories include pride, excitement, leadership, effort and independence, and empowerment.

From the beginning to the end of the units I studied, teachers observed students' confidence grow in the content area topic. During the fifth-grade math unit, students had a pre-assessment and post-assessment; student scores showed measurable growth between the two assignments. Mary observed Karen's frustration during the diagnostic pre-assessment, but Mary states that during the post-assessment Karen "seemed very confident... breaking it up into four equal groups and shading them red" for her optical art piece. Teachers observed a marked difference in the before and after assessments. In support of Mary's observations, Ginger says "I've seen students [with disabilities] who feel super successful... and more confident, more excited about the arts-integrated assessment than the traditional [assessment]." Not only did the teachers recognize the confidence increase, but the students appraised their own work with confidence in their learning. Each sixth-grade student completed a self-reflection rubric assessing content area understanding and artistic relevance, where all participants graded each category as "I've got this for sure!" Figure 4.10 is an example of the sixth-grade rubric. Since all students positively felt that they demonstrated their understanding, confidence in their learning experiences is evident.

This portion of the form should be completed by the student before turning in their project:

Level 3: "I've got this for sure!"

Level 2: "I think I've done what I need to do."

Level 1: "I'm really unsure about my efforts."

Level 0: "I didn't really try to do my best at all."

I filled out my research form completely with relevant facts:

0 1 2 3

I paired each illustration with a caption and they are presented in chronological order:

0 1 2 3

I took my time to create a neat art piece in the style of the ancient Egyptians:

0 1 2 3

I completed every step of the project and my timeline shows the role that my key historical figures had in transforming society:

0 1 2 3

Figure 4.10. Sixth-grade Student Reflection Rubric. This rubric demonstrates the student's confidence in his work.

Pride

When we are confident, we tend to take ownership over our efforts and our labor.

We can infer that students who are proud of their own learning are more confident as learners than those who are reluctant to talk about or exhibit what they know. When interviewed about students with disabilities, Mary stated "I think [the arts-integrated curriculum] allows students who might have challenges in different curriculum to feel successful and feel proud of their work." Jeannie's experience demonstrates Mary's thoughts. Mary described Jeannie as frequently becoming frustrated with math. With Jeannie's arts-integrated assessment, Mary took note of Jeannie being proud of her final product. Mary said "I think it was nice for her to be so successful independently and then be able to be so proud of the piece of work that she created." The notable "experience" of learning through creating is significant for the teachers, as it shows that students are

indeed learning and helps them to stay focused. The experience is also the time where students proudly exhibit their understanding.

Excitement

Through paying attention to body language and word choices, researchers can assess how excited students are about the work in which they are engaged. The students participating in the arts-integrated assignments were excited about their efforts, as reported by the teachers, displayed in work samples, or told in student first-hand accounts during my interviews with them. The classroom teachers testified to the fact that the arts-engaged learning activities generated student interest and excitement. Ginger stated “more often than not my students who are, you know, relatively low performing in certain regards tend to get very excited about the arts-integrated assessments and techniques.” Ginger compared the hesitation and apprehension of students with disabilities in a traditional classroom setting to the enjoyment of creating and collaborating with other students in an arts-integrated classroom lesson. Likewise, in the fifth-grade classroom, Mary described students with disabilities as more engaged in and excited “about learning in a way that they might not have before.” She recounted a drama and Social Studies incorporated unit where students used Shakespeare-inspired iambic pentameter to write a “long lost play” of an imagined European explorer. The students with disabilities pleaded with Mary to work on this project, which showed their heightened motivation, since it is rare that they are so interested in other kinds of work.

In regards to the arts-integrated units, the fifth and sixth graders both spoke about and showed their excitement about their learning experiences. In Mary’s classroom,

Karen passionately chattered “you’re still trying to do like math equations and having fun coloring at the same time, so it’s kind of like you have art class but you had your math class with it.” Sixth-grader Lyndsey expressed her feelings about completing her Egyptian project by saying “I felt excited and like I really enjoyed it.” Fellow sixth-grader Leah seconded Lyndsey’s claim by offering, “I almost didn’t go to recess because I wanted to do this... I just wrote more facts on there cause I wanted to.” The students clearly indicated their feelings they experienced while integrating the arts to learn.

When reflecting during the post-teacher interviews, the educators discussed their student observations while completing the lesson and how their observations connected to the students’ final assessments. Ginger correlated Lyndsey’s excitement with the fact the project was less traditional than other assignments, giving Lyndsey more opportunities to engage. According to Ginger, Lyndsey “became more confident with sharing her ideas” due to her excitement over the arts-based project. Annie, the Exceptional Children teacher, referenced Leah’s “passion for art,” which heightened her excitement about having the opportunity to draw as a way to show her understanding.

Larry’s experience provides another example of how heightened motivation and enthusiasm influences learning. In a typical non-arts project, Ginger described how Larry’s reading comprehension difficulties are often a frustrating hindrance to his engaging during class. Ginger witnessed Larry’s increased excitement in completing an arts-integrated assignment in comparison to his occasional frustrated behaviors. Through observations and evidenced by student work, the students with disabilities were often

filled with excitement during the art-based units. This excitement, in turn, provided them the confidence to successfully demonstrate their learning.

Leadership

Leadership and confidence are intimately connected. When a student feels confident in his or her learning, the student is often willing to take the next step to become a leader within the classroom environment. Students with disabilities are usually hesitant to initiate being a leader within a group due to low self-esteem. However, my research shows that the arts can be a pathway to empower students with disabilities to break this norm.

Especially in the sixth-grade Egyptian project, the classroom teacher, Ginger, observed students taking leadership roles within their small groups. Leah was “chiming in information” which for her was uncommon classroom performance. Ginger stated “just allowing [students with disabilities] an opportunity to become leaders in a group is something that you know they seem to really love and that’s one of the reasons why I think it is beneficial... they do see themselves more as a leader in that regard because they feel a little bit more confident.” Ginger discussed how students with disabilities need the opportunity to build confidence. The arts are one avenue for paving the way towards leadership opportunities.

Effort and Independence

Students with disabilities often lack the motivation or confidence to complete work independently. With traditional classwork including standardized tests, textbooks, and worksheets, students with disabilities sometimes require teacher or peer help. When

they are often provided with others' assistance, students with disabilities can sometimes become dependent on it or believe that they are incapable of completing the assignments independently. Working towards independence, students must put forth the effort to take risks associated with learning. Both the teachers and students interviewed discussed how the arts assignments increased student effort. This increased effort, in turn, lead to greater student independence and confidence.

The arts create an environment where students with disabilities can feel more confident in their work, and therefore, in many cases, they diligently complete their assignments. Ginger said the arts activities make students with disabilities "work harder." Mary echoed Ginger's comment by stating, "[the arts] allow students to be more a part of their learning rather than just sitting and listening." As the teachers explained, the interactiveness of the arts allows a range of places for students to begin assignments and promotes student effort. As illustrated in Figure 4.11, Mary graded all the students either meeting or above expectations in effort level on the Mondrain fractions assignment. Mary also recognized all of her students as challenging themselves in mathematical understanding but also artistic level. As seen in Figure 4.12, even the students felt that their efforts were significant. All of Mary's students self-graded this assignment as "meets expectations" for effort level. Ginger's student, Leah, showed her high level of effort on her arts-integrated project when she said, "I'm going to put all my heart into it." June, the SLP representative, also observed Leah taking ownership of the project, exhibiting her higher effort level in her excitement.

Final Optical Art Piece Rubric			
Category Assessed	Below Expectations (1)	Meets Expectations (3)	Above Expectations (5)
Effort	Student demonstrates a low level of effort. Student had difficulty remaining focused on the assignment.	Student demonstrates a high level of effort.	Student demonstrates a high level of effort and challenges himself/herself in math understanding and artistic level.
Creativity Standard: 5.V.2.3	Student has difficulty creating abstract art. Student's optical art piece includes little detail and neat lines.	Student is able to create abstract art. Student's optical art piece includes some detail and some organized lines.	Student is able to create abstract art. Student's optical art piece includes detail and organized lines.
Content: Development of reasonable art piece that demonstrates understanding fraction of a whole Standard: NC.5.NF.1	Student's optical art piece does not yet demonstrate understanding of naming fractions and/or understanding of equivalent fractions.	Student's optical art piece demonstrates good understanding of naming fractions and some understanding of equivalent fractions.	Student's optical art piece demonstrates high understanding of naming fractions and equivalent fractions.
Content: Defense of optical art piece Standard: NC.5.NF.1	Student was unable to utilize words and images to defend optical art piece. Student's defense demonstrates that student does not yet fully understand fractions. Student was not yet able to add and subtract fractions with unlike denominators using related fractions to defend mathematical reasoning.	Student was able to utilize words and images to defend mathematical reasoning behind optical art piece. Student was able to add and subtract fractions with unlike denominators using related fractions to defend mathematical reasoning.	Student was able to utilize words and images to defend mathematical reasoning behind optical art piece to a high level. Student was able to add and subtract fractions with unlike denominators using related fractions at a high level to defend mathematical reasoning.

Self Assessment Score	Teacher Assessment Score
11 /15	16 /25
Total Score 27 / 40	

Figure 4.11. Jeannie's Teacher Rubric. Jeannie's rubric is shown with her combined self-graded and teacher-graded score. Note Mary's grade for Jeannie's effort.

Final Optical Art Piece Student Rubric			
Category Assessed	Below Expectations (1)	Meets Expectations (3)	Above Expectations (5)
Did I put forth my best effort?	I did not stay on task. I did not put forth my best effort.	I worked hard, but I could have made choices to further challenge my learning.	I challenged myself and went above and beyond in my work in my mathematical thinking and artistic level.
Was I creative?	I did not create the abstract art and/or my art piece is not detailed and looks disorganized.	I created abstract art. I added details and organized lines.	I created abstract art. I added details and organized lines. My work is high quality.
Do I understand how to determine the fraction of a whole?	My optical art piece does not yet demonstrate understanding of determining the fraction of a whole. I was unable to use words or equations using equivalent fractions to defend my thinking.	My optical art piece demonstrates understanding of determining the fraction of a whole. However, I was only able to use words or equations using equivalent fractions to defend reasoning.	My optical art piece demonstrates high understanding of determining the fraction of a whole. I used words and equations using equivalent fractions to defend reasoning.

11 / 15

Figure 4.12. Jeannie’s Self-reflection Rubric. Note that her grade for effort met expectations. When she reflected in the interview, she felt that she could have challenged herself with a higher level of effort.

According to Mary and Ginger, the arts allow students with disabilities to be more independent than they normally would be during classroom learning time. Mary stated, “It [the arts] gives the chance for students to be able to create something and have ownership of what they’re doing.” During Jeannie’s fraction assignment, Mary observed the change in Jeannie’s level of independence. Unusual given her previous behavior, Jeannie asked fewer questions, which ultimately revealed her confidence in her learning. Similarly, Ginger referenced how Lyndsey double-checked her work, reassuring herself that she did her best work. Typically needing redirection, Lyndsey was engaged in the authentic arts-integrated activity which showed in her willingness and desire to perform her best.

Empowerment

The arts empower students with disabilities which can strengthen their confidence to learn. Describing the outcomes of an arts-enhanced lesson, Ginger said “you can have students who might not otherwise feel successful, feel successful.” In her experience, the arts create a pathway for success. In her first interview, Ginger mentioned a story of a student who gravitated towards the visual arts, so she encouraged the student to use pictures and drawings to supplement note taking, which she then noted helped the student remember facts. Ginger used this scenario to demonstrate how the arts used within an activity can make students feel successful and better learn the material she is presenting. Within her student context, Ginger saw Leah go “full force” into the assignment and “put in a huge effort to make sure that she was getting all of the aspects of the assignment.” In her interview, Leah stated “I’m really, really happy and fascinated and inspired to learn more.” These comments indicate the degree to which Leah was truly empowered as a learner. Similarly, while reviewing his work sample, Ginger commended Larry for independently rechecking his work with no guidance to do so, which to her, indicated that he felt successful and empowered as a learner. As Larry referred to his self-assessment, “I was very confident.”

The students with disabilities whom I studied no doubt felt more confident when they were learning through the arts as compared to activities where they did not have the opportunity to use the arts to illustrate understanding. The teacher observations and interviews with students all pointed towards the increase in student confidence when students learn through the arts. Students exemplify this confidence through being proud

of their work, showing excitement while completing the activities, taking leadership roles, demonstrating effort, and exhibiting independence. The use of arts-integrated lessons positively impacts student confidence which in the case of the two projects I studied, increased student understanding of grade level content area.

Theme 3: An Arts-Integrated Curriculum Affords Students with Disabilities the Opportunity to Experience Learning Content Area Standards Differently

It gives me another way to look at things instead of just looking at one way.
Madison, 5th grade student

The arts naturally provide differentiation for students of all abilities as there is not one right way to be artistic or creative. One reason why the arts are an effective vehicle for learning is that they appeal to many learning styles, and what are often referred to as multiple intelligences. Each student can take a unique avenue to understanding, one of which can be through integrating the arts, which facilitates the learning process by offering multiple pathways to learning. The following subsections illuminate how students learn “differently” through experiencing the arts in content areas.

Multiple Intelligences

Scholars who write about arts integration, and educators who use the arts to teach content area standards, often reference Gardner’s theory of multiple intelligences in their support of this approach. Ginger and Mary confirmed what other educators and researchers state: that they draw upon multiple intelligences is a benefit of arts-integration as a teaching technique. In her interview, Ginger referenced multiple intelligences as an inspiration for arts integration. Ginger stated that “the visual arts, the

dramatic arts, the musical arts that each student kind of connects with the most, and how they can utilize that to help them understand various academic topics” is an important foundation for creating understanding. A student can choose whichever art form best suits his or her interests or needs and then be successful at learning with or demonstrating knowledge through that art form. In catering to individual students’ needs, Ginger mentioned how students often gravitate towards a certain art form. She observed that students have “one that kind of helps them... not only express themselves but to understand whatever idea you’re talking about.” Mary also discussed the benefit of arts integration by stating the arts “give students multiple means of grasping content or expressing content” with “more opportunities to learn... the material and more varied ways.” Mary gave an example of the theater arts as appealing to kinesthetic learners. Students who “might be having difficulty writing down their understanding about a concept” are “much more successful in that.” The individualized pathways for students with disabilities are a unique benefit of using the arts to learn.

When examining students’ experiences, both teachers and students allude to the arts providing multiple avenues to understand content area standards. Madison, a fifth-grade student, stated, “I think that art helps me learn by the way of that it’s not just normally learning, instead of it’s more different and more understanding to me than just saying this, you actually put art into it.” Sixth-grade student, Lyndsey, reiterated that the arts assist in her demonstrating her understanding by saying “it [the arts] helps like show what you’re doing. If you like don’t write words, you can just show by the picture.” Not

only do students note that the arts help them understand content area standards differently, but teachers also observe this as well.

During my interviews with them, teachers compared students' traditional assessments to their arts assessments. They found students' disabilities can hinder their ability to show their understanding on traditional assessments. June noted Lyndsey would not have retained the information unless it was through an interactive visual timeline like the one she completed. Ginger stated that Leah benefited from the visual timeline because it would "help her with a more traditional assessment later." Larry exceeded expectations on his visual timeline. Ginger noted that he "seems to get very hung up on certain things when it comes to traditional assessments, so this was kind of something that was a little, but more laid back for him and he felt at ease with producing something like this." Instead of Larry's disability frustrating him, he relaxed in demonstrating his understanding in his visual timeline assessment. June reiterated that Larry was more successful with the arts assessment because, "a written language assessment would be more difficult for him... or at least would take more time for him to be able to work through." As shown with both the math and social studies visual arts assessments, the arts provide avenues for students to learn and demonstrate their understanding differently.

Level of Challenge

The arts give an opportunity for students to access learning opportunities at an appropriate level of challenge. Students with disabilities may not meet the traditional standardized test score for "grade level," but they can increase their level of

understanding with the arts. Students with disabilities can challenge themselves with arts-integrated assignments in ways that are appropriate for their individual learning needs.

Mary describes how students have a personalized level of challenge in arts-integrated activities. In her interview, Mary stated, “I think that [arts-integration is] a chance to have students see the curriculum in a more... engaging [and] in a more higher level way than just non arts-integration teaching.” One of Mary’s students, Madison, connected with Mary’s ideas by describing her experience of having “several ideas and then I just pick the best one and that challenges me more.” Recognized by teachers and students, arts integration offers options where students can meet their level of challenge, decreasing frustration. Jeannie, Karen, and Madison all expressed their desire to have challenged themselves more on their final Mondrian fraction assessment. This statement demonstrates that students have increased their confidence, realizing they were capable of going above the set expectations, even though they did not do so on these assignments. The arts provided these students with the opportunity to meet grade level expectations on the rubric, and they reflected that they could have done even more to challenge themselves. Karen stated, “I picked the easiest one... I think if I would have done a different fraction in a different way of doing it instead of doing the easy fraction I would have tried to done it the hard way, even though I would have needed a little help, but I still could have asked questions.” Karen realized that she met her level of challenge, but she also had the potential to persevere through more challenging options. With the sixth-grade visual timeline, Leah went above expectations by adding hieroglyphics which

according to her “was a lot harder than it seemed.” Even though Leah exceeded the requirements for the project, she had the opportunity to challenge herself. I wonder how often the students are able to experience the feeling of having learning challenges that can be met or even exceeded. Usually, the students with disabilities are attempting to meet the grade level expectations without frustration. In these assignments, they reflected on the fact that they could have gone above expectations if they were to change something about their experience. Even though they said they could have done more on these assignments, I wonder why they did not actually challenge themselves more. This is something worth of further research.

Focus and Engagement

Because the arts help students with disabilities learn content area differently, students show increased engagement and focus during learning opportunities; they tend to illustrate these differently than in traditional lessons. Mary implements arts integration techniques in her teaching because she believes that it “allows for a platform that’s engaging and exciting and interactive.” According to Mary’s experience with Georgia, she suggested that Georgia’s engaged behavior was “very focused and very much so wanting to get it right.” Similarly, Mary described Madison as focused and engaged because “she enjoyed the creative part of selecting the different colors to utilize.” Mary also admitted that “if it was a traditional just find equivalent fractions, I’m not so sure she would be as engaged in it as this.” Ginger observed Larry’s independence on his visual timeline and described his demeanor as “super focused, really diligent about getting that done.” Standardized assessments are often frustrating for students with disabilities, so

behaviors displaying engagement and focus are usually not present in these kinds of assessment. However, it was evident from talking to both the students and the teachers that these art-infused activities were likely to engage all of the students in their own learning, including those with disabilities.

Creativity and Inspiration

The arts inspire students to be creative, and through this creativity, students seem to engage more fully and persistently in learning content area standards. Ginger actually evaluates creative expression on the visual timeline rubric. Ginger explained her thoughts on the rubric by saying, “We’re just kind of seeking for students to kind of put themselves out there and do the best that they can do to create something that’s unique to them.” The open-endedness of artistic expression allows for students of all ability levels to succeed at creating an individualized arts product. Every one of Ginger’s students received full credit on their artistic presentation rubric piece, which required students to have mimicked Egyptian art style in a neat manner. In the fifth-grade visual art project, teachers assessed student creativity, which met the standard “create realistic, imaginative, abstract, and non-objective art.” All students met or exceeded expectations on this standard as they created abstract art with inspiration from the studied artists. In this context, the arts afford the opportunity for students’ creativity to flourish.

During my interviews with them, students identified the benefits of creativity to their learning. Georgia described her interactions with arts integration by saying “it’s just like find that creative that you can do your own stuff without anyone telling you what to do.” Karen spoke about her final product saying, “It really doesn’t matter how perfect it

looks... like color ours in a way that we like with all different kinds of colors and be creative with it and put different designs and different kind of pattern.” Karen even partnered the creative aspect of her experience with mathematical thinking. Mary recognized Karen’s excitement to show her creativity. Mary said, “[Karen] definitely was a lot more confident and was excited to get to add her creativity on the other squares too.” Creativity is valued within arts-integrated instruction. Even students recognize the unique opportunity to learn through creative avenues.

The arts allow individualized learning for students with disabilities as well as inspire students, which increases engagement and learning. The fifth-grade students learning through optical abstract art voiced their inspiration for their final assessment piece. Georgia implemented a mirroring technique in her piece, which she had seen at the local art park. Even the Exceptional Children teacher recognized that Georgia was inspired by this creativity by saying “it’s like an opposite sort of.” Madison specified that her inspiration came from her desire to be “different than everybody else.” Madison shaded her squares in different directions to achieve her goal of being unique. Karen based her optical art piece on the feeling of “falling into a hole” to feel dizzy. Karen stated, “I love how creative [my designs] were when I looked at ‘em, when I was done. I said to myself, I love all the designs and I did and I love how I tried my best to do it by myself.” Karen’s inspiration motivated her to demonstrate her content area learning successfully. The ancient Egyptian artwork that Ginger showed the sixth-grade class inspired the students. Ginger said, “I think [the visual timeline] shows a great deal of [Leah’s] understanding... even the style of the art that she uses. She was very excited

about using the typical characteristics that you find in ancient Egyptian art.” Ginger recognized that her modeling of Egyptian art inspired the students to illustrate their understanding effectively. The creative aspect to arts-integrated activities inspires students to learn content area standards differently than more traditional lessons.

The arts allow students with disabilities to have the freedom to learn content area standards differently than they are typically expected to learn. Ginger said, “I think [the arts] provides them lots of different opportunities to share what they’ve learned in different ways.” Ginger reiterated the significance of providing students with disabilities the many and varied options that the arts present. Considering that the arts are a good way to activate multiple intelligences, the arts are a flexible avenue for the students to learn and present their understanding.

Summary of Key Themes

The three key themes I found in the data I analyzed for this study begin to paint a picture of how students with disabilities interact with the arts to build content area understanding. Students and teachers discussed in detail how an arts-integrated curriculum aids content area understanding, impacts student confidence, and affords students a variety of learning opportunities and ways to illustrate their understanding. In the final, concluding chapter, I discuss how these themes connect with the research questions that drive this study. I also discuss the findings in more detail and reflect on the study as a whole, providing recommendations for future research and implications for educational practice.

CHAPTER V

ANALYSIS

Perhaps even more than traditional students, students with disabilities need a variety of effective methods to reach understanding and demonstrate their learning. As I have demonstrated throughout this study, the arts provided multiple avenues for the fifth- and sixth-grade students in this study to enhance their content area learning. My purpose in this study was to listen to students with disabilities and teachers who implement arts-integrated methods in order to find out if the arts are an effective means to achieve understanding. I was interested in not just whether the students learned through the arts-based activities, but how they experienced this learning. To evaluate the impact of the arts on content area learning, I gathered student and teacher perspectives and student work samples on two different classroom units. I had one research question with two sub-questions at the outset of this study. I used qualitative data collection methods to gather the data needed to answer these questions. In chapter four, I described these findings, organized by key themes. In this chapter, I answer my research questions directly and then discuss the findings, in part by connecting them back to the research literature. I also discuss limitations to this study, offer recommendations for research and practice, and reflect on what I learned in the process of conducting this research.

Answering the Research Questions

I had one central research question going into this study: How do students with disabilities within the general education curriculum and their teachers perceive the impact of an arts-integrated curriculum on academic achievement? Both student and teacher participants found arts-integrated curriculum to be meaningful to learning. Students voiced their opinions and demonstrated their passion for the arts through interviews and work samples. Teachers implemented self-created arts-integrated lessons where they found the arts to be a significant vehicle to enhance student learning in content areas.

Students with disabilities perceived the two arts-integrated units that I studied to be a successful and exciting way for them to learn and to demonstrate their understanding. Students, such as fifth-grader Georgia, indicated how the curriculum encourages independent learning. Georgia stated, “Knowing that I can at least do it, like, by myself and at least kind of getting the right answer.” The arts assignments provided open-endedness for the students to make choices that were fitting for their level of learning. In post-interviews, fifth-grade students recollected the significance of the arts assignments in clarifying previous misconceptions of the fraction standards. In sixth grade, students confirmed that the visual timeline influenced their high achievement on this assignment. With the open-ended nature of the arts assignments, students felt confident that the arts could help them to be successful on the assignments and learn the required materials.

The teachers thoroughly examined students’ learning from the beginning to the end of the arts-integrated units. Teachers anticipated that the arts curriculum would have

a positive impact on student learning. This predisposition is not surprising, as the teachers have spent many years teaching at a school where the mission is to integrate the arts into content area teaching. After teaching the units, the teachers' convictions were confirmed that the students could represent their understanding of learning standards through a successful chosen method. Normally, these students would be unlikely to easily grasp such content area concepts through traditional teaching methods, but as shown through the rubrics, the students demonstrated grade level proficiency through the arts-integrated activities.

I also had two secondary research questions. First, I wanted to know how the content area understanding of these students was impacted or enhanced by the integration of the arts. What I found was that the arts were a means of natural differentiation for these students to learn content area standards differently. Students could draw on different types of intelligences to choose a pathway to successful learning. The teachers spoke of giving students choices from multiple arts avenues, but in their lessons, they actually only provided the option of using the visual arts for the assessments. This restriction is a limitation to this study. However, students were provided the open-endedness to access learning at their appropriate level of challenge. The arts met their learning needs at whatever level of challenge was suitable for the specific assignment. Since the content area understanding was within grasp for these students, they were able to focus on their learning and exhibited significant excitement and engagement when learning. Focus and engagement in learning are not often present for these students; however, the students grasped content area understanding due to the arts

nurturing student creativity and choice. It seems as if art inspired the students, which led to creativity and freedom in the learning process, ultimately allowing students to demonstrate their understanding of content area standards.

My second research sub question was about how students feel about themselves as learners when using the arts to understand content areas. Given my own experiences, I expected that they would illustrate more confidence and enthusiasm about themselves in arts-infused activities as compared to other kinds of lessons and assessments. Not surprisingly, this was true as the students displayed confidence during the interviews and illustrated this confidence in their work samples. Working with the arts compelled these students to take ownership of their learning. Instead of the usual reluctance towards assessments, students were forthcoming and proud to speak about their learning and their experiences. Students exhibited their excitement through their willingness to speak confidently about their work samples. Even their teachers noted a higher level of engagement during the assignments, which contrasted with some of the students' usual hesitations toward learning. Students also took leadership roles, which demonstrated their empowerment through learning with the arts. The students' taking advantage of the provided leadership roles reflected the students' assurance of their level of learning. Students also felt that the arts provided them the opportunity to be independent to take risks in their learning. The high level of effort from students was also a testament to how students felt when using the arts to learn. Teacher observations and student reactions to learning content areas through the arts demonstrated how students with disabilities feel about themselves as learners when teachers are able to incorporate art into the lessons.

As I described in chapter four, the students I studied who completed two arts-enhanced units felt empowered, confident, enthusiastic, and excited about the activities and their own learning.

Discussion

Current research studies and experts in the field of arts integration influenced this study. The existing published literature is limited in its findings relating to students with disabilities using the arts to learn content area standards. My study directly continues in a similar vein to the existing literature on infusing the arts into traditional education while also filling a gap in arts-integrated research by studying the experiences of students with disabilities learning through arts-integrated lessons.

My study demonstrated the benefits of learning through the arts, which is in line with previous research. Researchers such as Lorimer (2011), Mason et al. (2008), and Rinne et al. (2011) all show that the arts are beneficial in closing the achievement gap. Students with disabilities are behind in content area learning due to a range of circumstances hindering them from learning through traditional methods. As shown in the data, the arts provided my student participants with the opportunity to access the content area material successfully in the two units that I studied. While they did not necessarily exhibit mastery, their teachers indicated that their performance in these units helped to showcase their talents and potential. Moreover, both the students and the teachers discussed their enhanced level of interest and engagement in learning when the arts were used as a vehicle for lessons and assessment. While I only studied two units with a small sample size, my findings suggest that drawing on the arts is one potential

strategy we can employ for closing the achievement gap for students with disabilities within the general education curriculum. Eisner (2002) praised the arts for its learning benefits, but little research has been conducted to adequately address the question of the arts in relation to students with disabilities.

My study and current research align in demonstrating the positive learning outcomes when using the arts to teach content area standards. In designing my study, I carefully chose teachers who were knowledgeable and consistent in their arts-integrated curricula practices. Reviewing the teachers' lessons and interviewing them before their teaching was valuable to assessing their perspectives of and knowledge of arts-integrated teaching. Burnaford et al. (2007) support this evaluation, and the importance of ensuring authentic arts engagement, because they argue that in an arts-integrated curriculum there must be an equal relationship between the arts and the content areas for understanding to occur. Silverstein and Layne (2010) also state the balance between the two must be "mutually reinforcing" to positively affect student learning. My study was influenced by current literature and led me to carefully select teacher participants who I knew had a reputation for high-quality arts-integrated instructional methods.

Current research suggests that teaching through the arts and assessing student understanding with art forms contributes to enhanced student understanding, which is consistent with my findings. In the sixth-grade Social Studies ancient Egyptian civilization visual arts lesson, the teacher used a visual arts timeline to engage student interest and attempt to explain abstract history standards. Similarly, Rudolph and Wright (2015) agree with using the visual arts as an assessment method for students to explain

abstract subjects like history. Surprisingly, Bresler et al. (2000) even studied almost the same topic, using visual arts for teaching ancient civilizations, and also identified the positive learning outcomes. The visual arts provide a concrete vision for abstract concepts. Researchers such as Eisner (2002) hail using the arts to understand abstract thoughts as a way to express what literal language cannot. The students with speech/language deficiencies in my study were able to confidently express their understanding through the visual arts assessment pieces because of the lack of required written expression. However, the fifth-grade students still struggled with the written reasoning piece due to deficits in written expression. At the post-unit interview, the classroom teacher realized that she needed to facilitate the written requirement to effectively modify the assignment for those students.

The teacher participants explained their personal views on the benefits of the arts, which included the opportunity for student flexibility in demonstrating understanding and the advantage of a level playing field in learning. Even though this project did not afford choice of multiple arts avenues, the typical classroom projects integrate the arts. During the interviews, the teachers hailed the arts as providing choice and natural differentiation, which aligns with researchers' perspectives. The arts affording choice is also seen in current research from Mason et al. (2008). When given multiple means of expression, Hartle et al. (2015) found that students with disabilities could demonstrate proficiency in their content area understandings. Since the arts' avenues allow for students to have independent options in their learning experiences, students feel empowered to take leadership in their learning. In my study, teachers observed students taking leadership

opportunities, which was unusual in comparison to the students' traditional classroom behaviors. The arts provide many and varied opportunities for learning to occur and be assessed, allowing for success for all students. My findings were consistent with the research of Mason et al. (2008) and Trent and Riley (2009) who showed that students benefit from arts assessments instead of the traditional testing methods.

Current literature recognizes heightened motivation and engagement from students who participate in arts-integrated lessons. These observations directly correlate with the findings of my study. According to their teachers and in their own self-assessment, both fifth- and sixth-grade students in my study were diligent, independent, creative, and engaged, which contrasted from how they often experienced traditional lessons. Catterall (2002), Lorimer (2011), and Moorefield-Lang (2010) spoke of increased motivation and confidence with students interacting with the arts. The individualized learning experiences allowed for students to be successful at their own level of understanding. This observation aligns with Radhakrishnan (2014) who stated that the arts helped students find a voice in their learning experiences. I too saw how the students in my study were able to find a way to express their understanding, and developed increased confidence in the process.

There is little current research that examines the voices of students with disabilities to hear how they interact with the arts to learn content area standards. Research studying arts-integrated curriculum has similar findings to my study especially in discovering increased engagement and a higher level of understanding. The student participants were able to demonstrate their understanding of grade level content

area standards with increased confidence. The arts afforded this unique population of students with the opportunity to experience learning differently. Current studies have come to similar conclusions, but my study adds to the literature by delving deeper into the population of students with disabilities.

Additions to the Literature

The current literature speaks of arts therapy methods as a beneficial way to break down communication barriers for students with disabilities. Missing from the conversation is how arts-integrated content area teaching could be an adaptive learning method and assessment technique for students with disabilities. Even though research has shown that the arts are beneficial for students by providing multiple avenues for choice in terms of how to learn and demonstrate that learning, there has been very little attention to studying the arts as a learning opportunity for students with disabilities. My study is unique in that I gave students with disabilities a voice for all to share their experiences learning content area standards through the use of the arts for learning and assessment. Some disabilities hinder communication whether verbal or written. The students I interviewed were willing and excited to speak about their work. Elaborating on their work was sometimes challenging for students, but with patience and time, I was able to get students to discuss their understanding. In conducting research with these students, probing questions and reflective time are necessary; this may be why there is not a lot of research that centers student voices.

By drawing upon student perspectives, I paint a picture of students' first-hand accounts to evaluate the benefits or pitfalls of using an arts-integrated curriculum. This

study contributes to the literature by diving into specific instances where students with disabilities deem the arts helpful for their learning. Being taught by knowledgeable educators in arts integration, the students experienced content areas with a new perspective due to the authentic, arts-infused lessons. By seamlessly merging content areas and the arts, the teachers allowed students to create meaning based on their learning experiences. Unique to the current literature, the setting of this study is an institution that immerses kindergarten through eighth-grade students in arts activities. Given the institution's mission, students and teachers are predisposed to honor the arts as a mode of learning. My research establishes that students' interactions with the arts can be a positive alternative to traditional instructional methods.

Compelling Findings

A unique data piece from my study was the opportunity to listen to students with disabilities to hear about their understanding from the lessons and about their interactions with the arts. It is not common in the literature to include voices of students with disabilities talking about content area understanding. Instead of just teachers weighing in on the assessment of work samples, students also explained their reasoning and feelings while completing the assignments. The findings were compelling as fifth-grade students showed significant growth in understanding from the beginning to the end of their fraction unit. Most teachers and students verbally acknowledged the success of the arts-integrated project. Since both fifth- and sixth-grade students were successful at demonstrating some of the grade level content area standards, the findings were significant. The arts provided an avenue that was necessary for these students to feel

confident in expressing their knowledge. Unlike current research, my research honored student voices to suggest a possible effective way for students with disabilities to successfully learn grade level content.

Limitations

While there is much to learn from this study, it also contains limitations. In qualitative research, the researcher is the primary instrument, which can be a possible limitation. The researcher is limited by his “sensitivity and integrity” (Merriam, 1998, p. 42). Using my instincts throughout the study was a limitation, but as the primary instrument, I had to be discerning of my potential bias. The process of using a peer reviewer was helpful as our check-in points during the study reminded me to reflect on my own assumptions towards the arts. For example, occasionally my peer reviewer advised me to take the role of an outsider instead of a teacher at the school, which indicated moments where I needed to take a step back and look at other possible interpretations of my data. Another limitation is the unique setting of a school that teaches content area through an arts-integrated approach. Because of this setting, the students were all already habituated to using the arts to express themselves, and thus they have built this skill over time. Simply integrating the arts into a traditional setting might not have the same effect as a whole school arts-infused curriculum. As fifth and sixth graders, these students have developed the ability to use art and aesthetic expression over time, and it is not uncommon for them to be asked to talk about their own self-assessments. Therefore, the findings may not be generalizable to all students with disabilities or students in a different educational context. Many of the educators involved

in this study stated that a specific student's interactions with the arts were dependent on the disability category. However, I did not gather data by specific disability category. Nonetheless, the teachers acknowledged that students in some disability categories benefitted from the arts integration technique more so than others. For example, Ginger and Mary referenced students categorized as Other Health Impairment who are diagnosed with Attention Deficit/Hyperactivity Disorder. They stated that these students benefit from interactive performing arts activities that engage them to focus and move. Ginger also discussed Dyslexic students who effectively achieved by "representing something in a more visual way rather than in words." Ultimately, I acknowledge that my study is only "a slice" of a bigger picture (Merriam, 1998, p. 42).

Since I work in the school where the study takes place, my positionality is both an asset and a limitation. My basis for my interest in conducting this study was my experience with the arts being a pathway for learning. With my teaching experience being in a school which focuses on using the arts to learn, I am predisposed to believing in the arts' ability to enhance student understanding and student engagement. I believe in the power of the arts to encourage and motivate learning without influence from previous literature. Even though I previously witnessed students with disabilities reacting in a positive way toward using the arts to learn, I also experienced the opposite. For instance, I encountered a student on the Autism spectrum who was nonverbal nearly eighty percent of the academic school day and his fine motor skills were below age appropriateness. This student did not engage in arts-integrated activities unless his choice was a simple visual arts representation of his understanding. This student learned better by repetition

of material instead of artistic interpretations or representations. Therefore, this experience influenced my interpretations of how other students of the Autism spectrum would interact with the arts. In contrast, I have had numerous students with speech/language impairments who learn better through the use of the visual arts than when they are required to use words to demonstrate understanding.

Another limitation is my participant pool. I only studied a small sample size of students with disabilities within the general education curriculum. With these students qualifying in various disability categories, I recognize that the outcomes are not specific to a disability category. The small sample size allowed me to dig deeper and paint a picture of each student's learning experience, but the findings cannot be generalized to the larger category of students with disabilities. The study only represents two grade levels, but the findings could differ in lower or upper grade levels. They could also differ depending upon disability category represented. An unforeseen limitation was turnover in the Exceptional Children department, which affected my participant pool. Having a consistent Exceptional Children staff who had stronger relationships with the student participants could have yielded more detailed conversations about the students' interactions with the arts in the post-unit interviews.

My findings may not be applicable to other settings due to the fact that the school already nurtures children and educators who enjoy arts-driven teaching methods. For example, in a traditional public school setting, the results might not be similar, especially with teachers who do not have the buy in or understanding of implementing authentic arts-integrated practices. The participant pool of educators and students work and learn

in an environment that celebrates the arts and integrates the arts with content area standards on a regular basis. Parents applied for the charter school knowing that the mission was to learn through the arts. Therefore, this belief and buy-in of arts-integrated learning is present within the student and teacher participants.

The data collection placed limitations on this study, which makes generalizing the findings difficult. The data collection only included qualitative data; I did not assess quantitative data to assess if the arts experiences translated into improved test scores. The two units taught confined the data collection, so the focus of the study included Math and Social Studies standards. I did not create the arts-infused units. Rather, the classroom teacher participants had the freedom to create the arts-integrated units with any art form or content area standards. Both teachers chose assignments involving the visual arts and visual representation of learning, which made the examples more similar than different. However, the possibilities of arts integration for these content areas are endless. Teachers could have provided students choice to which type of art form they felt best suited to express their learning. Instead of using the arts integration as an assessment piece, the arts can be a hook to engage students or the opportunity for students to explore a topic. For example, to meet the sixth-grade Social Studies standard, the students could have written a conversation script between a pharaoh and another character, performed some of the pharaoh's major contributions to society, designed costumes of the time period, written song lyrics, or even made a three-dimensional symbol of the empire. The teaching opportunities are endless, but arts-integration as assessment is not the only way to implement the arts into content area.

Future data collection on this subject can expand the data collection to other content areas, art forms, grade levels, and specific disability categories.

Both from my own experiences and from the interviews with teachers, as well as from the existing research, I know affording choice often is highlighted as a benefit of teaching through the arts. The absence of much choice in my study is a limitation. Even though the classroom teacher participants had the freedom to create their own lessons, they really did not provide the students with much choice. To actually produce student choice, the teachers could have given options for the final arts assessment. For example, instead of solely offering a visual timeline, the students could have chosen between writing a script, building a model, creating a dance, composing song lyrics, or any other possibilities. In the fifth-grade assignment, more student choice was offered with the students being able to choose their fraction and how they actualized their fraction in the form of optical art. However, aesthetic choices are a rather limited form of choice. In light of this limitation, the teachers might have provided students with various routes involving other art forms in pursuing understanding.

Recommendations for Practice

Educators should pay attention to the findings of this study because they often ignore students with disabilities because they do not fit a traditional classroom mold. Instead of attempting to find an instructional method that best fits these students' needs, teachers tend to become frustrated and abandon the students' learning potential. Based upon findings from this study, I recommend that educators attempt to reach learning goals through multiple avenues and experiment with different approaches

to teaching and assessing content understanding. The arts have the capacity to be an open-ended avenue towards learning success because of the opportunities for the use of multiple intelligences. Educators must remember that reaching the learning goal is more important than the avenue taken to obtain the goal.

A suggestion for instructional practice is to authentically integrate the arts into content area standards. By planning an arts-integrated lesson where the arts and the content area mutually reinforce one another, teachers give students multiple avenues to learn and express their understanding. Not only can the arts help students make sense of content area standards, but the arts can also be used for assessment. The arts can benefit students by providing them the opportunity to demonstrate understanding of content area. The natural tendency for children to enjoy interacting with the arts and to prefer the freedom of choice are both positive effects of using the arts. Even though planning arts-integrated units can be time-consuming, the overarching teaching recommendation is to plan a lesson where students can interact with the arts. Table 5.1 provides a list of a number of good resources to assist educators in beginning their endeavor to implement arts integration. Like my study and current research show, this type of learning opportunity could contribute to learning success.

Table 5.1. Suggested Arts-integration Resources

Resource Name	Link	Description
Kennedy Center ARTSEGE	http://artsedge.kennedy-center.org/educators/lessons	Free lesson plans which can be searched by grade level and subject area
Americans for the Arts	https://www.americansforthearts.org	Resources on advocacy for Arts education
The Wallace	https://www.wallacefoundation.org/	Foundation dedicated to

Foundation	pages/default.aspx	bringing the arts to disadvantaged children.
Read Write Think	http://www.readwritethink.org/	Literacy lessons powered through the International Literacy Association and the National Council of Teachers of English. Arts and literacy- and art-integrated lessons can be searched and used for free.
Education Closet	https://educationcloset.com/arts-integration-lessons/	Free arts-integrated lesson plans in all content areas
United Arts Council	https://www.unitedarts.org/arts-integrated-lesson-plans/index	Free elementary grade level lessons from teachers around Wake County, NC
A+ Schools of North Carolina	https://aplus-schools.ncdcr.gov/	Search resources for the live binder of materials from lesson plans to a arts-integrated lesson plan template

Based on my findings, I also share recommendations for educators who are already integrating the arts in their classrooms. When having students complete arts-integrated assessments, teachers should lessen the focus on aesthetics (whether the assignments look neat and “pretty”), so a clearer picture of student understanding can be evaluated. Students tend to emphasize a project’s aesthetics instead of the content area standards, teachers have the power to help shift students’ focuses. In arts-integrated assessments, teachers can shift by creating rubrics that primarily assess understanding of the content area standards, instead of aesthetics such as color or creativity. When students with disabilities are interacting with the arts, teachers should take into account modifications that need to be made in accordance with the students’ Individualized

Education Plans. For example, for students with disabilities required to write their math rationalizations, they could have used a word bank or sentence starters as effective modifications. Allowing students with disabilities to demonstrate their understanding through the arts should be empowering, not frustrating, which can happen if assignments are not modified with their specific learning needs in mind. Arts-integrated lessons need to be developed with in-depth connections between content area and arts standards. Educators sometimes fall short of this ideal by using the arts as a supplemental piece to a lesson, which leads to surface-level learning and devaluing of the arts. These suggestions for amendments in instructional practice place emphasis on authentic arts-integrated content area learning opportunities.

Recommendations for Additional Research

Due to the limitations of this study and the future possibilities that arose during the data collection process, I have recommendations for additional research. Future studies should be completed in a traditional public school environment. With the bound nature of the study's setting, a comparable study in a traditional setting would be compelling. If kept in the same or a similar setting, a study that accounts for the length of the student's enrollment in the arts-integrated school has the potential for helping scholars to understand if a child's immersion in that environment affected his or her perspective on the arts or learning with the arts. Students are predisposed to knowing how to successfully use the arts to learn if they have been in that environment for their entire schooling. Alternatively, conducting this study in a traditional school setting could yield less routinely positive results. In a setting with more Exceptional Children

participants, a study examining a group of students with a specific disability category is possible. With the limited number of Exceptional Children in the two grade levels studied, another setting would be advantageous for speaking with students from just one disability category. In specifying the disability category, educators would advance their understanding of the arts' benefits or challenges. Adjusting the setting is recommended for future research.

An additional study including quantitative data collection methods could help to answer further questions that are often raised related to educational interventions: Do they improve tests scores? Policymakers focus goals on standardized learning targets in only specific subjects; this has led to a marginalization and defunding of the arts, since they cannot be easily assessed as compared to other content areas like math and reading comprehension (Trent & Riley, 2009; Rabkin, 2012). Skeptics of arts integration want to view standardized test scores increasing from the learning experience, even when there are other clear social and developmental benefits of using arts in the classroom. Therefore, a study including pre- and post-standardized assessments could reveal the effectiveness of arts integrated learning experiences on traditional assessments. Skeptics typically have concerns about end-of-grade testing. Such a study could be performed to assess whether the arts-integrated experiences translated into passing standardized test scores. This study has scratched the surface of the possibilities for research on students with disabilities learning through an arts-integrated curriculum. Ultimately, more time working qualitatively with these students using a range of different arts-infused activities

would help researchers to get a much better sense of the potential of the arts in transforming the educational experiences and outcomes for students with disabilities.

Final Reflections

As I reflect back on my study, my transformation as an educator and researcher is a significant aspect of my doctoral experience. Even though I felt like an expert in the field of implementing arts-integrated units, I soon realized nuances that need to be considered for my future practice as an educator. With some challenging moments, I realize aspects that I would change for future data collection and in arts-integration practices. I organize my final reflections to bring insight into my growth as a researcher and educator.

Learning Moments

Maya Angelou's words describe my learning experience through this study; "I did then what I knew how to do. Now that I know better, I do better" (Winfrey, 2011). This study led to many powerful moments, which I anticipate will lead to changes in how I teach and conduct research in the future. I gleaned the most informative data by listening to the participants. Giving the participants the opportunity to have their perspectives, insights, and understandings heard led me to see connections among their diverse work samples and to develop the overarching themes that I discussed in chapter four.

While I have always used arts integrated assignments as a classroom teacher, I realized how important these are for students with disabilities and how including even more possibilities and choice of assessment options could transform their learning experiences even more. No doubt the arts-integrated curriculum provides students with

disabilities the opportunity to demonstrate understanding of content area standards, impacts their confidence, and affords the opportunity to experience content area standards differently. Students with disabilities do not fit in a mold. The Individualized Learning Plans (IEPs) state the child's disability category with learning accommodations and measurable learning goals according to the identified disability. These plans are called *individualized* because each child is unique even if he is in an overarching disability category. Classifying students often leaves them generalized within a disability category and then unfortunately often marginalized in the classroom, subject to lowered expectations or even forgotten about due to their learning difficulties. Often forced into a mold, many students with disabilities find learning frustrating, which hinders learning opportunities.

These students need a voice and ownership in their learning. Listening to these students describe their learning experiences was enlightening as it reminded me of the powerful potential of creativity in the classroom. Imagine how instructional practices can be affected by just listening to how students are interacting with the curriculum. If the way educators teach is not working for students, then why are instructional practices so often standardized and routinized, and remarkably similar over time? Homogeneous teaching does not benefit most students. This study shines a light on an instructional avenue worth considering even more fully than we do now because of the opportunity for students with disabilities to demonstrate understanding.

Students with disabilities need the opportunity to be successful. The arts provide options for these students to draw upon a range of different skills and intelligences, which

in return, can lead to increased understanding and classroom confidence. The students in my study felt increased confidence in showing their learning through an art form. The open-ended nature of arts assessments provides options for students to show what they have learned on the taught standard. In my study, the students showed their learning using visual arts, but they may have even had more opportunity if they had more choices among potential assessments; for example, using other art forms, including drama, music, or other creative mediums. When students have multiple opportunities to express their learning, teachers have a better picture of student understanding. The arts afford the opportunity for students with disabilities to learn and experience content areas differently.

Surprising Moments

Some of my most surprising moments stemmed from my interactions with the participants. As a teacher, I often feel removed from the needs and voices of students with disabilities. Unfortunately, these students often take a back burner within an entire class because typically they cannot maintain the same level of independence and work at the same pace of most of their classmates. Taking the time to listen to my student participants forced me to reflect on my own strategies and practices as a teacher. I realized I probably do not spend enough time with my students with disabilities, especially listening to them in a one-on-one setting describing their understanding. Doing this with my research participants made me realize that I should also be listening more often to my current students. Like most teachers, I think in the past, I assumed what these students felt in the classroom, instead of giving them the voice to reflect on

their learning experiences, explain their thinking, and demonstrate their understanding.

The student participants were excited to be interviewed and, most importantly, to be heard. Even though the questions I ask were sometimes difficult for them to answer, the students seemed to enjoy the experience and were able to thoughtfully reflect on their overall experiences and feelings about using the arts.

The teachers' reactions to examining each individual's work sample were surprising. Diving deeply into discussing the individual's work with the Exceptional Children team left the classroom teachers with new perceptions of the students' learning experiences. After the teachers taught the units, I interviewed the students before the teachers, which was helpful in that I could include student commentary within our teacher conversations. The data collection forced teachers to consider how students felt about their work samples. For instance, Georgia spoke of her optical art inspiration stemming from an experience at the local art park. After her teacher Mary heard about the art park's influence, the reasoning behind Georgia's symmetrical optical art fraction surprised her. Mary's newfound connection to Georgia's piece led Mary to reflect on how she should have spoken with her students to "have been able to better understand their thinking on the topic." Considering the student self-assessment, Mary affirmed that hearing student "opinions regarding their success on the final project even if it differed from my assessment of their work" would be enlightening. Since the sixth graders presented their projects, Ginger felt that she had had the opportunity to listen to her students' thoughts and interpretations. In the future, Ginger stated that listening to the students' individual explanations would be "enlightening and helps to better gauge their

level of understanding.” Intriguingly, teachers had not previously acknowledged students’ feelings, reactions, or explanations of the lesson.

Ultimately, I was most surprised while listening to the students. Even though the majority of the students have disabilities relating to speech/language development, the students I interviewed were eloquent in describing the arts-integrated activities and explaining their work samples. While the teachers graded the students as demonstrating grade level understanding, listening to the students’ work sample commentary reassured me of the quality of the students’ learning. The arts empowered these students to confidently engage in a conversation on their understanding and experience.

Challenging Moments

Due to my predisposition, developed through experience, to assume that the arts always benefit student learning, the data collection process was challenging, in part because I worried that I might always see the positive impacts of the lessons but overlook the potential limitations. Even though the arts boost overall student confidence, the arts may also lead to overconfidence where confidence does not match student learning. For example, fifth-grader Karen stated, “I think I do really good at my math,” but she scored below grade level for her project defense. Even though she demonstrated conceptual understanding of the math standards with her visual illustration, she was unable to provide the written explanation. This hindrance stems partly from her disability and her need for writing modifications, but I also question if overconfidence is a potential limitation for arts-infused learning. What happens when students enjoy the experience and like their aesthetic creations, but do not actually show increased understanding, or

worse, exhibit significant misunderstanding? While this did not happen with the students I studied, the potential to focus on aesthetics and not understanding is one worth exploring further.

Similarly, one of the dangers of an arts-integrated curriculum is excessive focus on the aesthetic aspect of the project. Teachers and students in this study both implied that the arts must be colorful or “pretty” or detailed, even assessing students on things like beauty and neatness, as I saw in my pilot study. Sometimes students focus their energy on these aesthetic aspects to the detriment of their content area learning. When describing her math project, Karen stated she, “put different designs and different kinds of patterns in it to make it look nice and make it look really creative.” Her teacher, Mary, acknowledged Karen’s attention to the aesthetics of her project by stating that she was “excited to get to add her creativity on the other squares too.” On the other hand, some students such as Georgia were more concerned about the academics instead of being able to “relax and just have fun creating too.” On the sixth-grade project, Leah also focused on the aesthetics by stating that she “almost didn’t go to recess because I wanted to [work on the pictures].” In the case of Leah, for example, she seemed to worry more about drawing the images perfectly than the goals of the assignment, which were to understand how historical ideas develop over time. Mary and the Exceptional Children team attributed how some students focused on aesthetics while others focused on historical aesthetic representation to the students’ typical classroom behaviors. According to the team of teachers, the students who usually dismiss academic work or are highly distractible usually focus more on aesthetics instead of the academic aspects of the art-

integrated project. This can be a challenge in actualizing the full-potential of arts-integration, especially as an obsessive focus on making something look good and pretty can get in the way of ensuring that student learn the content material too.

After they taught these units, both teachers contemplated lesson changes or enhancements for future use. They discussed with me how they might modify or change the lessons in order to enhance the experience for their students with disabilities. For example, Mary and the Exceptional Children team decided a word bank would assist students with the written expression they asked for students to complete to accompany their creations. When all of the students did not meet expectations for the written explanation of the optical art piece, the teachers knew a change needed to be made to assist the Exceptional Children population in being successful.

Modifying Moments

If I were to perform the study again, I would change some elements of data collection. When creating their lessons, I would have asked the classroom teachers to collaborate with the arts specialists and the Exceptional Children staff in order to better scaffold the Exceptional Children learners and possibly give them, and all the students, opportunity for more advanced student understanding. With student participants who struggled with written expression, teachers incorporating writing into their arts-integrated assessments may have impeded students from showing their full understanding. Some of the student participants seemed to need scaffolding for their writing whether, through a word bank or sentence starters. With these supports, the students may have had a better opportunity to explain their reasoning behind their art pieces. Through my interviews

with students, I was able to hear their entire reflections, whereas the teachers did not take the time to listen to their thought processes. In the post interviews, the Exceptional Children team made the suggestion for future assignments to have such modifications when the arts assignments required a written reasoning component. Alternatively, it may serve these students better to have the opportunity to orally express their understanding, rather than be required to do so in writing. Another option would have been to have the Exceptional Children teachers collaborate more with the classroom teachers on these assessments. If the Exceptional Children team collaborated with the classroom teacher to work with those students, the modifications could have been present, and the students' written explanations would have exhibited their reasoning.

While it was not possible for me as a full-time classroom teacher to devote full-time to this research, I am sure if I lengthened the time frame in which I collected data, I could have given a more in depth and nuanced picture of the students throughout the school year. For instance, I would have chosen to speak with the students on multiple arts-integrated projects and been able to assess which types of projects showed the most promise for each student. I could have collected data on multiple arts areas instead of just visual arts. I wonder how students with disabilities learn when other art mediums that I did not explore are used. Further insight from the arts specialists such as the visual arts teacher would provide insight into how the students interact with the arts in the stand-alone arts classroom versus the general education classroom. I wonder if their willingness to learn through the arts is even greater in the arts classroom or if their knowledge from arts classes transfers well between the classroom environments.

Observing student interactions with the arts could have also been a helpful piece to evaluate their effort, learning, and confidence. Much can be learned from watching students engage in a classroom project, including assessing how focused and engaged they seem, the moments where they are challenged, and how they go about planning for and completing their projects. It would also allow researchers to draw a more nuanced picture of how much they truly understand the content material. If I were to do the study again, I also would be interested in speaking with students in higher grade levels where they could possibly explain their thinking in even more detail. While this study was exploratory in nature, I think much can be learned with further research on the potential of art-integrated activities with all students, not just those with disabilities. This would be especially valuable at a time when an increased focus on standardized testing means that in many schools, the arts are disappearing.

Reflective Moments

At the end of this study, I am thankful to have heard from teachers and students about their experiences while interacting with an arts-integrated curriculum. Educators often hail the arts as providing meaningful authentic learning opportunities for students but tend to rely on anecdotal, rather than research-based evidence. Critically examining the arts to inspect if and how the arts are a beneficial avenue for students with disabilities to learn successfully is important research. Because these students do not fit into the mold of traditional learning methods, educators must explore other avenues to ensure that they are provided equitable learning opportunities. From my first-hand experiences of attempting multiple ways to teach students with disabilities, I was initially interested in

my study because I wanted to learn even more strategies to individualize learning experiences with my students and to understand their value. Conducting this research in a school, which centers around arts-integrated curriculum, I was sure to have educator participants who were knowledgeable on practicing authentic arts integration. Even with a small pool of student participants, I was able to voice to their perspectives and experiences on the value and learning benefits of interacting with the arts.

Throughout this dissertation process, I have learned about myself as a researcher. I have found positive personal qualities that benefitted me as a researcher, but I also discovered qualities that needed to improve. My passion and knowledge in the field of arts integration benefitted me in my endeavor. With my undergraduate studies including obtaining an Exceptional Children license focusing on students with disabilities within the general education curriculum, I think I was able to connect with the students with disabilities who I interviewed. Being a teacher at the school, I have solid experiences with and understanding of authentic arts integration, which led to my passion for this study. Even though I tend to be patient as a teacher, I realized that researchers must have a higher level of patience when dealing with silence in interviews. Significant data can emerge from providing the participants time to think and speak, which means learning to allow silence during interviews. In becoming a better researcher, I have also found a need to dig deeper rather than just seeking surface level findings. The opportunity to complete a pilot study gave me the time to investigate further into how to evaluate data. Overall, completing this study helped me to hone my organizational and research skills, especially being a careful listener and observer.

I view my study as a stepping-stone for future research in the field of arts integration and as influential for educational practice. Students with disabilities desire for educators to listen to them about their educational needs. Authentic arts integration is a possible avenue for success for students with disabilities to confidently reach their grade level content area goals. While it may not always lead to the kinds of academic growth that we hope for as educators, as can be seen in this study, there are lots of positive benefits that come from integrating the arts into classroom learning.

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APPENDIX A

IRB CONSENT FORM, CLASSROOM TEACHER

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT

Project Title: The Perceived Impact of an Arts-Integrated Curriculum on the Academic Achievement of Fifth- and Sixth-Grade Students with Disabilities.

Principal Investigator and Faculty Advisor (if applicable): Eleni Fragakis/Kathryn Hytten

Participant's Name: _____

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. Your participation is voluntary. The purpose of this study is to identify perceptions of educators and students on learning by using an arts integrated curriculum (gaining content area such as Social Studies or Math understanding through the use of arts activities). You are being asked to participate because of your grade level teaching position and your teaching in a school that uses arts integration in their curriculum. As you normally would in lesson plans, you will be asked to collaborate with an arts specialist at your school to integrate content area standards and arts standards to formulate an arts integrated lesson. You will be asked to provide the lesson plan including rubric to the principal investigator. You will be interviewed before and after you teach the arts integrated lesson to discuss your background with the arts, your creation and teaching of the lesson, your observations of student interactions with the arts, and your reflections on student achievement for the content area standards. Your post-lesson interview will take place with an EC teacher, so both perspectives will be obtained.

Why are you asking me?

You are being asked to participate because of your grade level teaching position (either fifth or sixth grade) and your teaching in a school that uses arts integration in its curriculum (The Arts Based School).

What will you ask me to do if I agree to be in the study?

You will be asked to provide your formal lesson plan and rubric to the principal investigator. You will be asked to do at least two interviews, depending on data gathered, before and after you teach your planned lesson. There may need to be a follow up interview post-lesson if there are unanswered questions in relation to the students' work samples. Both interviews together will take about two hours total. The principal investigator, Eleni Fragakis, can be reached at (336)817-1641 for any further questions on what you are consenting to.

Is there any audio/video recording?

An audio recording will take place during your interviews. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information or have suggestions, please contact Eleni Fragakis or Kathy Hytten who may be reached at (336)817-1641 (Eleni Fragakis) or kahytten@uncg.edu (Kathy Hytten).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Are there any benefits to society as a result of me taking part in this research?

This study may provide you with support in future planning of arts integrated units by providing a time for reflection within the interviews. Your students may benefit from participating in the lesson you created.

Are there any benefits to *me* for taking part in this research study?

There are no direct benefits for your participation in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you or payments made for participating in this study.

How will you keep my information confidential?

Your information will be kept confidential as all names will be changed. All information obtained in this study is strictly confidential unless disclosure is required by law. The data will be stored on the UNCG storage service, Box, which is password protected. Your name will be assigned a pseudonym, and your real name will never be disseminated.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, in this study described to you by Eleni Fragakis.

Signature: _____ Date: _____

APPENDIX B

IRB CONSENT FORM, EXCEPTIONAL CHILDREN TEACHER

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT TO ACT AS A HUMAN PARTICIPANT

Project Title: The Perceived Impact of an Arts-Integrated Curriculum on the Academic Achievement of Fifth- and Sixth-Grade Students with Disabilities.

Principal Investigator and Faculty Advisor (if applicable): Eleni Fragakis/Kathryn Hytten

Participant's Name: _____

What are some general things you should know about research studies?

You are being asked to take part in a research study. Your participation in the study is voluntary. You may choose not to join, or you may withdraw your consent to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to you for being in the research study. There also may be risks to being in research studies. If you choose not to be in the study or leave the study before it is done, it will not affect your relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. Your participation is voluntary. The purpose of this study is to identify perceptions of educators and students on learning by using an arts integrated curriculum (gaining content area such as Social Studies or Math understanding through the use of arts activities). You are being asked to participate because of your teaching position in the EC, Exceptional Children, department and your teaching in a school that uses arts integration in its curriculum. You will be asked to interview with the fifth and sixth grade teacher participants after they have taught an arts integrated lesson. Since you work with the students on a regular basis due to their IEP, Individualized Education Plans, you will be asked to reflect with the teacher on the students' academic progress in a content area as shown in the students' work samples and observations of student behavior during the lesson.

Why are you asking me?

You are being asked to participate because of your teaching position within the EC department and your teaching in a school that uses arts integration in its curriculum (The Arts Based School).

What will you ask me to do if I agree to be in the study?

You will be asked to do at least two interviews following the teachers' lessons. There may need to be a follow up interview post-lesson if there are unanswered questions in relation to the students' work samples. Both interviews together will take about two hours total. The principal investigator, Eleni Fragakis, can be reached at (336)817-1641 for any further questions on what you are consenting to.

Is there any audio/video recording?

An audio recording will take place during your interviews. Because your voice will be potentially identifiable by anyone who hears the recording, your confidentiality for things you say on the recording cannot be guaranteed although the researcher will try to limit access to the recording as described below.

What are the risks to me?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants.

If you have questions, want more information or have suggestions, please contact Eleni Fragakis or Kathy Hytten who may be reached at (336)817-1641 (Eleni Fragakis) or kahytten@uncg.edu (Kathy Hytten).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Are there any benefits to society as a result of me taking part in this research?

This study may provide you with a time to reflect on your current teaching practices and the particular students' academic progress in the content areas.

Are there any benefits to *me* for taking part in this research study?

There are no direct benefits for your participation in this study.

Will I get paid for being in the study? Will it cost me anything?

There are no costs to you or payments made for participating in this study.

How will you keep my information confidential?

You information will be kept confidential as all names will be changed. All information obtained in this study is strictly confidential unless disclosure is required by law. The data will be stored on the UNCG storage service, Box, which is password protected. Your name will be assigned a pseudonym, and your real name will never be disseminated.

What if I want to leave the study?

You have the right to refuse to participate or to withdraw at any time, without penalty. If you do withdraw, it will not affect you in any way. If you choose to withdraw, you may request that any of your data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your participation at any time. This could be because you have had an unexpected reaction, or have failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you read, or it has been read to you, and you fully understand the contents of this document and are openly willing consent to take part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are 18 years of age or older and are agreeing to participate, in this study described to you by Eleni Fragakis.

Signature: _____ Date: _____

APPENDIX C

IRB CONSENT FORM, PARENTAL PERMISSION FOR A MINOR

UNIVERSITY OF NORTH CAROLINA AT GREENSBORO

CONSENT FOR A MINOR TO ACT AS A HUMAN PARTICIPANT: LONG FORM

Project Title: The Perceived Impact of an Arts-Integrated Curriculum on the Academic Achievement of Fifth- and Sixth-Grade Students with Disabilities.

Principal Investigator and Faculty Advisor: Eleni Fragakis/Kathryn Hytten

Participant's Name: _____

What are some general things you should know about research studies?

Your child is being asked to take part in a research study. Your child's participation in the study is voluntary. You may choose for your child not to join, or you may withdraw your consent for him/her to be in the study, for any reason, without penalty.

Research studies are designed to obtain new knowledge. This new information may help people in the future. There may not be any direct benefit to your child for being in the research study. There also may be risks to being in research studies. If you choose for your child not to be in the study or you choose for your child to leave the study before it is done, it will not affect your relationship or your child's relationship with the researcher or the University of North Carolina at Greensboro.

Details about this study are discussed in this consent form. It is important that you understand this information so that you can make an informed choice about your child being in this research study.

You will be given a copy of this consent form. If you have any questions about this study at any time, you should ask the researchers named in this consent form. Their contact information is below.

What is the study about?

This is a research project. Your child's participation in this project is voluntary. The purpose of this study is to identify perceptions of educators and students on learning by using an arts integrated curriculum (gaining content area such as Social Studies or Math understanding through the use of arts activities). Your child is being asked to participate. Your child's work samples will be examined to identify achievement after an arts integrated unit of study and to collect data. Your child will be interviewed after the arts integrated unit to discuss what he or she learned and to reflect on their learning experience.

Why are you asking my child?

Your child qualifies for this study because he or she is receiving EC services through an IEP.

What will you ask my child to do if I agree to let him or her be in the study?

The interviews with your child will be structured and audio recorded to obtain accurate data. The interviews will be about your child's understanding of the content area concept, your child's perceptions of their learning, and your child's reflections on their work. Pictures of your child's work samples could be used as data. The time duration is approximately a combined one hour of time for both interviews.

Is there any audio/video recording of my child?

There will be audio recording of the interviews, but your child's face will not be shown. Because your child's voice will be potentially identifiable by anyone who hears the tape, confidentiality for things said on the tape cannot be guaranteed although the researcher will try to limit access to the tape as described below. I will not ever identify your child by name.

What are the dangers to my child?

The Institutional Review Board at the University of North Carolina at Greensboro has determined that participation in this study poses minimal risk to participants. Your child may miss class time by participating in the interviews, but this will be minimized by taking place during the whole class reflection time and not during direct teacher instruction.

If you have questions, want more information or have suggestions, please contact Eleni Fragakis or Kathy Hytten who may be reached at (336)817-1641 (Eleni Fragakis) or kahytten@uncg.edu (Kathy Hytten).

If you have any concerns about your rights, how you are being treated, concerns or complaints about this project or benefits or risks associated with being in this study, please contact the Office of Research Integrity at UNCG toll-free at (855)-251-2351.

Are there any benefits to society as a result of my child taking part in this research?

This study may provide support for students with disabilities in understanding what is most effective to meet their learning needs. If you would like, I will also share information with you about how your child is learning.

Are there any benefits to *my child* as a result of participation in this research study?

There are no direct benefits to your child for their participation in this study.

Will my child get paid for being in the study? Will it cost me anything for my kid to be in this study?

There are no costs for you or payments to you or your child as a result of participation in this study.

How will my child's information be kept confidential?

Your child's information will be kept confidential as all names will be changed. All information obtained in this study is strictly confidential unless disclosure is required by law. The data will be stored on the UNCG storage service, Box, which is password protected. Your child will be assigned a pseudonym, and his or her real name will never be disseminated.

What if my child wants to leave the study or I want him/her to leave the study?

You have the right to refuse to allow your child to participate or to withdraw him or her at any time, without penalty. If your child does withdraw, it will not affect you or your child in any way. If you or your child chooses to withdraw, you may request that any data which has been collected be destroyed unless it is in a de-identifiable state. The investigators also have the right to stop your child's participation at any time. This could be because your child has had an unexpected reaction, has failed to follow instructions, or because the entire study has been stopped.

What about new information/changes in the study?

If significant new information relating to the study becomes available which may relate to your willingness to allow your child to continue to participate, this information will be provided to you.

Voluntary Consent by Participant:

By signing this consent form, you are agreeing that you have read it or it has been read to you, you fully understand the contents of this document and consent to your child taking part in this study. All of your questions concerning this study have been answered. By signing this form, you are agreeing that you are the legal parent or guardian of the child who wishes to participate in this study described to you by Eleni Fragakis.

Participant's Parent/Legal Guardian's Signature

Date: _____

APPENDIX D

IRB CONSENT FORM, STUDENT

Study Title: The Perceived Impact of an Arts-Integrated Curriculum on the Academic Achievement of Fifth- and Sixth-Grade Students with Disabilities.

My name is Eleni Fragakis.

What is this about?

I would like to talk to you about your experiences with using the arts to learn about a subject. I want to learn about how a lesson involving art helps you to learn.

Did my parents say it was ok?

Your parent(s) said it was ok for you to be in this study and has/have signed a form like this one.

Why me?

We would like you to take part because you have or are considered an exceptional child with your Individualized Education Plan.

What if I want to stop?

You do not have to say “yes” if you do not want to take part. We will not punish you if you say “no”. Even if you say “yes” now and change your mind after you start doing this study, you can stop and no one will be mad at you.

What will I have to do?

You will talk to me after you finish an art assignment about what you learned. We will probably talk two times for about 30 minutes each. I will also take pictures of your work and reflections.

Will anything bad happen to me?

Nothing bad will happen to you.

Will anything good happen to me?

You may benefit from participating in this study because you will be able to show a teacher how you are learning and what is important to you.

Do I get anything for being in this study?

You do not get anything specific for being in this study except to tell about your learning experience. I will bring snacks for when we talk.

What if I have questions?

You are free to ask questions at any time.

If you understand this study and want to be in it, please write your name below.

Signature of child

Date

APPENDIX E

CLASSROOM TEACHER PRE-UNIT INTERVIEW PROTOCOL

Background

Tell me your teaching background.

Tell me about your experiences in relation to arts-integrated curriculum.

How do you define arts integration?

Can you give an example of an authentic arts-integrated activity?

Broad Picture

What do you see as the value of arts-integrated curriculum?

Tell me how you have used the arts to enhance student understanding.

Does an arts-integrated curriculum enhance student understanding?

How does an arts-integrated curriculum influence students' self-efficacy as learners?

How do you work with your colleagues to formulate arts-integrated lessons in connection with your teaching standards?

How have you used the arts to assess student learning?

What are the advantages or disadvantages to using the arts to assess student learning?

How do the arts interact with standardized assessments?

Specific Interest Questions

These questions will be framed in keeping K-6 learners with disabilities in mind.

How does an arts-integrated curriculum impact this population of students?

What is your perception of teaching these students through the arts?

Have you experienced students with disabilities understanding concepts through the arts more or less effectively than through traditional general education curricula?

Please provide an example.

In comparing traditional assessment methods and arts-integrated assessment techniques, how does this student population respond to each?

With the arts in mind, how does the level of engagement differ between students with disabilities and the mainstream student population?

Can you describe a specific situation?

How do the arts affect the self-efficacy of this group of students, particularly how they see themselves as learners?

Give a specific example.

Are there specific visual or performing art types that this population gravitates towards?

Why do you think they perceive these approaches as more beneficial?

Can you describe a situation?

Unit Questions

Tell me about the creation of your arts-integrated unit that you will be teaching.

Who did you collaborate with?

What is/are your goal/s for this unit?

What do you hope the arts assessments will illustrate about student learning?

Conclusion

Is there anything that you would like to add before we end the interview?

I may follow up with you for more information if anything needs clarification.

APPENDIX F

CLASSROOM TEACHER AND SEPCIAL EDUCATION TEACHER POST-UNIT INTERVIEW PROTOCOL

Tell me about the instructional process for this lesson.

Tell me about _____'s work sample. (repeat for each student)

When this student was completing this work sample, what did you observe about his/her behavior?

How does this sample compare/contrast from this student's typical classroom work or assessments?

What does this assessment show about their content area learning?

If you were to complete a traditional assessment for this learning standard, how do you think this student would demonstrate his/her learning?

APPENDIX G

STUDENT POST-UNIT INTERVIEW PROTOCOL

What is the experience like when you are using the arts such as dance, drama, visual arts, and music?

How does art help you learn?

How do you use the arts to show that you have understood a concept?

Give me an example where art has helped you learn something.

Describe yourself as a creative thinker and learner.

What do you know about (content area topic for unit)?

Do you feel like you succeed in (content area)?

Tell me about your project. (using work sample to probe conversation)

What did you learn from this project?

Did completing this project help you to understand more about (concept)? How so?

How did you feel doing this project?

How did you use the arts to show that you have understood (concept)?

Tell me about your reflection rubric.

What did you do really well in this project?

What could you have changed to make this project better?

Can you explain (content area concept) to me?